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ANNALES
OF
ORIENTAL LITERATURE.

ART. I. *Analytical Comparison of the Sanskrit, Greek, Latin, and Teutonic Languages, shewing the original identity of their grammatical structure.* By F. Bopp.

It is now very generally admitted, that there exists a similarity between the Sanskrit and several of the languages, which by conquest or other causes, have obtained the most extensive adoption over both ancient and modern Europe. No person however, not practically acquainted with the language of the Brahmans, could be aware that there exists a coincidence so exact and so universal throughout all portions of grammar as is really the case. Many resemblances are evident at first sight, others are discovered by more careful investigation, and the more closely we analyse the recondite structure of the kindred tongues, the more we are surprised to find them constantly developed by the same principle.

A careful inquiry into the analogy of the Sanskrit with the above mentioned European languages must, on many accounts, be considered as truly valuable. It shews the higher or lower degree of affinity by which nations, who in the remotest antiquity wandered from the land of their ancestors into Europe, are connected with the present inhabitants of India. It shews, secondly, that those refinements of grammatical construction by which the Sanskrit is so advantageously distinguished from all the spoken dialects of the Indian world, already existed in that remote antiquity, when colonies, leaving their Asiatic seats, transplanted into Europe their native tongue; because by the same refined grammar which distinguishes the Sanskrit from the Bengali, Tamul, Hindustani, and the Mahratta languages, &c. it is connected with the Greek, Latin, and the ancient Teutonic dialects, among the latter, particularly with the Gothic. Hence we may conclude that the beauties of the Sanskrit language are

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not the work of the learned or the priesthood, as some might be inclined to suppose; but that they really were in daily use in the mouth of the people, and were so strongly impressed upon their minds, that they did not forget them in their transmigrations beyond distant mountains and seas. We might farther conclude, that a nation, possessing a language so polished in so early a period, where we are altogether abandoned by the light of history, must be able to boast of a very ancient literature, and it is credible that those who remained in their native country, or more in its vicinity; for it is probable that what we call Sanskrit was spoken also in its primeval form by the ancient Persians and Medes; would think upon means to preserve in their purity the tenets of their religious and civil institutions; that they might deliver to their successors the venerated traditions of their ancestors, they would probably invent means of writing them down before their brethren who wandered abroad, could recover sufficient leisure for that purpose. Therefore, what the Brahmans tell us, concerning the antiquity of their Védas, and other religious writings, stands upon a more solid ground than they perhaps themselves are aware, and before the contrary has been more effectually proved than has yet been done, we may with due precaution and necessary restrictions, listen to the reports of the Hindus, who are certainly not merely guided by vanity when they so unanimously speak of the high antiquity of part of their literature.

Another and not less important reason, which makes a critical comparison of the Sanskrit with its European sisters, worthy to be undertaken, is the light thrown thereby upon each of the languages compared, and the clearer view we thence obtain of the most ancient forms of each respectively, and probably some conception of the original and primitive signification of a great part of the grammatical inflections common to all. It is chiefly by comparison that we determine as far as our sensible and intellectual faculties reach, the nature of things. Frederic Schlegel justly expects, that comparative grammar will give us quite new explications of the genealogy of languages, in a similar way as comparative anatomy has thrown light on natural philosophy.

I do not believe that the Greek, Latin, and other European languages are to be considered as derived from the Sanskrit in the state in which we find it in Indian books; I feel rather inclined to consider them altogether as subsequent variations of one original tongue, which, however, the Sanskrit has preserved more perfect than its kindred dialects. But whilst therefore the language of the Brahmans more frequently enables us to conjecture the primitive form of the Greek and Latin languages than what we discover in the oldest authors and monuments, the latter on their side also may not unfrequently elucidate the Sanskrit grammar. That is to say, whilst the Sanskrit has preserved many grammatical forms, which can be supposed to have formerly existed in Greek, Latin, Gothic, &c. there are instances where the reverse is the case, where grammatical forms, lost in the Sanskrit, have been preserved in Greek or Latin. To explain this fact it will be necessary to offer a few remarks, which shall be more fully investigated in their proper place. The first person of the Sanskrit verb is generally indicated by an *m*, this *m* in the present tense is followed by an *i*, thus *b'avàmi* signifies I am, the second and third persons are *b'avasi*, thou art, *b'avati*, he is, plur. *b'avanti*, they are. From these persons the middle form* is derived by the slight change of the terminating vowel *i* into *è*; *b'avati*, *b'avanti*, *b'avasi*, become *b'avatè*, *b'avantè*, *b'avasè*; corresponding with the Greek *δίδοται*, *δίδονται*, *δίδοσαι*. We should expect that analagous to this, *b'avàmi* would make in the middle form *b'avàmè*, but here the *m*, which is the characteristic of the first person, is lost, together with its preceding vowel, and only the terminating *è* remains, so that we find *b'avè* instead of *b'avàmè*. If the analogy of the Sanskrit language alone was insufficient to produce a conviction that this must have originally been the middle form of *b'avàmi*, the Greek forms *δίδομαι*, *τύπτομαι*, &c. would inform us that *mè* (*μαι*) characterized the first person of the present tense, middle form, in that ancient Asiatic tongue, before it was transplanted into Europe. The Latin also has preserved the original shape of some inflections, at present lost in Greek and Sanskrit, and, whilst there is a pronoun extant in the two latter

* Called by Dr. Wilkins, in his Grammar, the proper form.

of which the former has no vestige, a few adverbs and derivatives, as *tam, tum, tot, totus, tantus* excepted; there is one pronoun in Latin, complete in declension, which has, with the exception of a few cases, some adverbs and derivative pronouns, become obsolete in Sanskrit, and has left scarcely any traces in Greek. This subject, I hope, will be found of sufficient importance to require some further explanation, which shall be given in its proper place.

But before we enter upon our comparison, it will be necessary to explain the manner in which the Sanskrit words occurring in this essay will be written in the Roman character. The Sanskrit alphabet contains 50 single letters, and the Roman only 25, if we comprise the *y* and *z*. But as it is inconvenient in matters of grammar to represent one single letter by two or three, as is too frequently the case, I shall endeavour to propose a method by which this can be almost entirely avoided. With respect to the vowels, it will be sufficient to state, that after the example of Sir William Jones and Dr. Wilkins, I here make use of the Italian orthography as the basis, distinguishing the long from the short vowel, in Sanskrit represented by particular letters, by means of a grave accent. In a few instances, however, where grammatical differences are expressed only by the length or shortness of a vowel, I have made use of the prosodial signs, in order to attract more effectually the attention of the reader. Those who are unacquainted with the Italian, will do well to follow the French pronunciation, with the exception of the vowel *u*, which is to be pronounced as in the English word *bull*, where it has no accent, and like the word *rule*, where it is marked with a grave accent. Besides the vowels known in European languages, the Sanskrit has an *r*, considered as a vowel, with a sound much the same as that of the syllable *ri* in the English word *merrily* where the *i* is scarcely heard. In fact the *r* is the only consonant which can be pronounced without the help of any vowel, and it is therefore not at all to be wondered at that the Hindus consider it as a vowel, where it is neither preceded nor followed by another vowel, and that they have invented a particular letter for it, which it will be thought well to represent by our common *r*, with a point

under it, (*r*). Sanskrit grammars speak also of an *l* vowel, but this letter scarcely ever occurs, and it is therefore not necessary to embarrass ourselves with the invention of a mode of representing it.

It is proper to be acknowledged, that the Italian language has preserved most faithfully the Latin pronunciation, and we may be assured, that the single vowels, at least, were pronounced in Latin as they still are pronounced in Italian. It will be desirable therefore that, in order the better to comprehend the following comparisons, the English reader would follow the Italian pronunciation in Latin words also, laying aside for a little while his peculiar manner of pronouncing them, by which he distinguishes himself, not much in favour of truth, from all the continental nations. With respect to the Greek pronunciation, I believe, that for the single vowels at least, that of Erasmus is to be preferred, conformably to which η corresponds to the Sanskrit $\bar{e}$, and is to be pronounced like a French *e* with a circumflex accent, as in the word *tête*; its corresponding short vowel ϵ is rather to be pronounced like the French *e* in the word *bonté*. ι has always the sound of *i* in French, either short or long, and υ that of a French, if not rather of an Italian *u*. Following this pronunciation, the similarity of the Greek with the Sanskrit will appear more striking than by that generally adopted in England.

With regard to the consonants we have to observe, that in Sanskrit each has its corresponding aspirate, to express which the Indian alphabet is furnished with particular letters. It will be convenient to indicate these by the Greek sign of aspiration, in order to avoid representing one letter by two; conformably to this I write *b'avati*, he is, and not *bhavati*. There is a letter in the Sanskrit alphabet having exactly the sound of an English *ch*, which we may use, as the only instance of two letters expressing a single sound.* Its corresponding aspirate will regularly be accompanied by the Greek sign of aspiration (*ch'*). Another Sanskrit letter has the sound of an English *j*, or of an Italian *g* before *e* or *i*; I

* It might be given also by a Z, to which we could conventionally adjoin the sound of the English *ch*. I generally use a Z when I write Sanskrit with Roman characters for my own use, to gain time.

represent it by *j*. Where words, in which this letter occurs, are used in Latin or Greek, we generally find a *g* or γ in its place; as for instance, *jana*, (nom. *janas*) race, family, people, (*les gens*) *genus*, $\gamma\acute{\epsilon}\nu\omicron\varsigma$; *janitrì*, mother, *genitrix*, $\gamma\epsilon\nu\acute{\epsilon}\tau\epsilon\iota\tau\alpha$; *ràjà*, king, *rex*, *reg-is*, (*il rege*), *ràjati*, he *reigns*, *regit*; *jànu*, *knee*, (a neuter noun), *genu*, $\gamma\acute{o}\nu\upsilon$; *rajatam*, silver, *argentum*; *jarà*, decrepitude, old age, $\gamma\eta\rho\alpha\varsigma$, &c.

There are three kinds of sibilants in the Sanskrit alphabet. One corresponds to the common English *s*, as in the word *sama*, similar (*similis*, $\acute{o}\mu\acute{o}\varsigma$, the *same*); another has a slight aspiration, and might be accompanied by the Greek *spiritus lenis* (*s'*). This *s'* very frequently is changed into *k*, but only after established rules of euphony, and we find that where words are in Sanskrit written with this *s'*, in Greek and in Latin a *k* or *c* are its usual substitutes; for instance, *das'a*, ten, *das'amas* the tenth, correspond to the Greek and Latin, $\delta\acute{\epsilon}\kappa\alpha$ and *decimus*; and the root *drś*, to see, which forms *drak-syàmi*, I shall see, answers to the Greek verb $\delta\acute{\epsilon}\rho\kappa\omega$, &c. The third sibilant has a strong aspiration, and is therefore to be marked with the *spiritus asper* (*s'*). It seldom occurs at the commencement of a word, unless it be confounded with one of the two preceding sibilants, most frequently it is a change of the first *s*, produced by the rules of euphony. The Sanskrit alphabet contains four different *n*'s, which are respectively used as the following letter may chance to be a guttural, palatial, cerebral, or dental consonant, but as the three first scarcely ever occur at the commencement of a word, and as we have no occasion to use them in this essay, we have no need to fix upon any sign for distinguishing them from the common *n*. It will be more necessary to mark with a point, after the example given by Dr. Wilkins, a peculiar kind of *t* and *d*, called cerebral, together with their aspirates, that they may not be confounded with the common dental *t* or *d*, as *t*, *d*, *t'*, *d'*. The letter *y* wherever it occurs in this essay, in Sanskrit or Gothic words, is always to be considered as a semi-consonant, and to be pronounced as in the English word *year*; it answers to an Italian and German *j*.

Before we quit this tedious but unavoidable subject, we may be allowed to pay a tribute of deserved praise to the admirable

system by which the alphabet is arranged by the Sanskrit grammarians; in the original grammars the letters are classified with the most scientific skill, in an order founded upon the nature of the organs of speech by which they are respectively articulated. Many sounds, which other languages are obliged to express by several letters, can be represented by single ones in the Sanskrit alphabet, which also has particular characters for short and long vowels, and even for the diphthongs *ai* and *au*; but those connected with one another in sound bear also a similarity in the shape by which they are expressed. There is only one defect of which we may accuse the Sanskrit alphabet, namely, that the short *a*, the short Italian *e* and *o* are not distinguished from one another. For I cannot believe, that in the language of the Brahmans, when it was a vernacular tongue, the *akàra* had always the power of a short *a*, and that the sounds of *e* and *o* never occurred in it; I rather think that the sign used for the short *a*, was put also to express a short *e* and *o*. If this was the case, it can be accounted for why in words common to the Sanskrit and Greek, the Indian *akàra* so often answers to *ε* and *ο*, as for instance, *asti*, he is, *ἔστι*, *patis*, husband, *πόσις*; *ambaras*, sky, *ὀμβρος*. rain, &c.

The languages, which we shall now endeavour to shew, as being intimately connected with the Sanskrit, are the Greek, Latin, and the ancient Teutonic dialects. Among the latter we prefer the Gothic, as the oldest, and, therefore probably, bearing the greatest similitude to its Asiatic sister. Ulphila's Gothic translation of the Gospels, which has happily escaped the destruction of time, was made in the fourth century. We dare boldly affirm, that the language of Ulphila has a closer resemblance to the Sanskrit than to the English, although in the latter, as belonging to the Teutonic stock, there is not extant any grammatical inflection, which might not with facility be deduced from the Gothic. The reader himself can apply our remarks on the Gothic to its kindred dialects, ancient and modern, and he will find that among the modern, the German chiefly abounds in grammatical coincidences with the Sanskrit. Similar coincidences preserved in the Slavonian dialects are too striking to be

entirely overlooked, and among Oriental languages, the Persian, Armenian, and, we may add, the Georgian, can be proved to have had one origin with the Sanskrit, the sacred language of the Hindus. We shall perhaps have an opportunity of speaking of these in one of the following numbers, confining ourselves at present to those of a more general interest.

Of the Roots.

WERE we inclined to follow the example of the first grammarians, and to form a grammar by an analysis of speech, we should at the end of our labour only be led to discover those simplest elements which we call roots, and from which the Indian grammarians derive all words, from which also the larger portion, with the exception of pronouns, numerals, and particles, really do proceed. It will be well to avail ourselves of the labours of the first grammarians, and beginning with the simplest elements, contemplate the roots developing themselves under our own sight, as we may say, into various ramifications. The character of Sanskrit roots is not to be determined by the number of letters, but by that of syllables, of which they contain only one;* they are all monosyllables, a few excepted, which may justly be suspected of not being primitives. A Sanskrit root may contain as few letters as are requisite to constitute a monosyllable, that is to say, a single vowel is sufficient, and it may also accumulate as many letters as can possibly be united into one syllable. I shall give examples of the two extremities; *ì* is a root, common to three languages, signifying to go. In Sanskrit we may form from it *ìmas*, we go, in Latin *imus*, Greek *ἴμεν*, or after the Doric dialect, *ἴμεε*. *Svask* is a root, which likewise signifies going in Sanskrit; in this we find collected four radical consonants with one vowel. The reader will observe, that in its first elements the Sanskrit shews a strong contrast to the Arabic and its sister languages. The nature of an Arabic root is not to be determined by the number of syllables, but by that of radical letters. Three of these

* The vowels *a* and *i*, terminating verbs of the fifth and tenth conjugations, remain only in certain tenses, and therefore cannot be considered as belonging to the root.

(quadriliteral verbs being not to be considered as primitives) neither less, nor more, characterize an Arabic root, among which letters, the short vowels, which are necessarily used to articulate the radical consonants, are not to be counted. An Arabic root may be a monosyllable, if the second radical is an *elif*, *waw*, or *ya*, as *sàl*, *kàl*, being pronounced in grammar *sàla*, *kàla*, the last short vowel does not really exist in the spoken language, which agrees more with the Hebrew. But the greatest proportion of Arabic roots contains two syllables, as *Katab*, *barà*, *àtar*, &c. Roots like the above mentioned *ì* cannot possibly occur in Arabic.

Wherever we are enabled to reduce, with any certainty, Latin, Greek, and Teutonic verbs or nouns to their roots, we find them always to be monosyllables, as for instance, *da*, *sta*, *mon*, *min*, (*moneo*, *memini*), *frag*, (*frango*, *fregi*), *vid*, *voc*, &c. corresponding to the Sanskrit roots, *dà*, to give, *stà*, to stand, *man*, to mind, *b'anj*, to break, *vid*, to know, *vach*, to speak. Examples of Greek roots are *φά* (*φάω*) Sansk. *b'à*, to shine, *ἔδ* (*ἔδω*), Sansk. *ad*, to eat; *δεικ* (*δείκνυμι*, *δείξω*), Sansk. *dis*, to shew; future tense, *dèk-s'yàmi*, I shall shew. There are, however, roots in Greek, which bear evidently the character of having two syllables, as for instance, *ὀρέγ* forms the verb *ὀρέγω*. But if we consider, that frequently, words, which the Greek has in common with other languages, are distinguished in the former by a prefixed *ο*, as *ὄνομα*, name, *nomen*; Sansk. *naman* (nom. *nama*;) *ὀδούς*, *ὀδόντ-ος*, *dens*, *dent-is*, Sansk. *danta*;* *ὀφρύς*, eye-brow, Sansk. *b'rù*, likewise a feminine, whose nom. is *b'rùs*, &c.; if we pay due regard to these and many similar cases, we shall be inclined to take *ρεγ* as the primitive root of *ὀρέγω*, which would agree with the German root *reck* (*recken*), of the same signification.

As examples of Gothic roots may be cited, *slep* (*slepan*) to sleep, Sansk. *svap*; *var* (*varyan*) to prevent, Sansk. *vr*, which forms *vàrayati*, he prevents, Goth. *vareith*; *vas* (*vas-yan*) to clothe, Sansk. likewise *vas*; *vai* (*vaian*) Sansk. *và*,

* The Greek adverb *ὀδᾶξ* will be better derived from the verbal root *ΔΑ'Κ*, to bite, connected with the Sanskrit root *das*, (forming the future *dak-s'yàmi*); of the same signification.

expressing in both languages the motion of the air, *vaivoun vindos*, which occurs in Matt. vii. 25, signifies, "the winds blew;" in Sanskrit I often met with *vavau vāyuh*, the wind blew, *vavau* being formed by the reduplication, like the Gothic *vaivoun*, whose singular is *vaivo*.

If we can draw any conclusion from the fact that roots are monosyllables in Sanskrit and its kindred languages, it is this, that such languages cannot display any great facility of expressing grammatical modifications by the change of their original materials without the help of foreign additions. We must expect that in this family of languages the principle of compounding words will extend to the first rudiments of speech, as to the persons, tenses of verbs, and cases of nouns, &c. That this really is the case, I hope I shall be enabled to prove in this essay, in opposition to the opinion of a celebrated German author, who believes that the grammatical forms of the Sanskrit, and its kindred languages, consist merely of inflections, or intermodifications of words. Mr. Frederic Schlegel, in his excellent work on the language and philosophy of the Hindus, very judiciously observes, that language is constructed by the operation of two methods; by inflection, or the internal modification of words, in order to indicate a variation of sense, and secondly, by the addition of suffixes, having themselves a proper meaning. But I cannot agree with his opinion, when he divides languages, according as he supposes them to use exclusively the first or second method, into two classes, reckoning the Sanskrit language, and those of the same family, in the first, under the supposition that the second method never is used by them. I rather think that both methods are adopted in the formation of all languages, the Chinese perhaps alone excepted, and that the second, by the use of significant suffixes, is the method which predominates in all. Reduplication, for instance, is found in languages, which scarcely use any other mode of modifying words. The Arabic, and its sister languages, are considered by Mr. F. Schlegel as having a remarkable tendency to use the second method, and he very ingeniously observes: "Where the first and most essential forms, as those of persons in verbs, are marked by incorporated particles, having an in-

dependent meaning themselves, in their separate state, and where a propensity to adopt similar suffixes shews itself in the ground work of the language, there we may safely believe that the same circumstance has taken place in other instances, where the addition of foreign particles cannot now be so certainly recognized; we may be convinced that the language generally belongs to this class (which uses suffixes) notwithstanding it has already assumed a higher character by means of mixture and artificial refinement." The indication of the persons of verbs in the Sanskrit language, and those of the same origin, Mr. F. Schlegel considers as being produced by inflection; but Scheidius shews very satisfactorily, with respect to the plural at least, that even the Greek verbs make use of pronouns, in compound structure with the root, to indicate the various persons. With respect to the singular, he would have succeeded much better if he had not limited himself to the corrupt form in ω , terminating the third person of the present tense, in $\epsilon\iota$, where I cannot perceive any pronoun incorporated;—but had extended his view to the form in $\mu\iota$, terminating the third person in the Doric dialect with $\tau\iota$. Scheidius commits another fault, namely, that in speaking of the pronouns he stops at the nominative, whilst the crude form of nouns may be better extracted from the oblique cases. In this way it is easy to discover that $\tau\omicron$ is the radical form of the Greek article, which is originally nothing more than a pronoun of the third person, and is used as such in Homer. This $\tau\omicron$, bereft of the final vowel, becomes an essential element of verbs in their third person, singular, dual and plural, as, $\delta\acute{\iota}\delta\omicron\tau\iota$ *, $\delta\acute{\iota}\delta\omicron\tau\omicron\nu$, $\delta\acute{\iota}\delta\omicron\nu\tau\iota$. I have no doubt but it can be proved, with as much certainty at least as in the case of the Arabic, that Sanskrit verbs also, form their persons, by compounding the root with the pronouns, upon which subject I shall offer a few remarks in its proper place. Mr. F. Schlegel does not enter into any inquiry of the origin of what is generally called grammatical inflection, this subject belonging not to the plan of his highly instructive work, if he had been induced to undertake it, it

* Used in the Doric dialect, in which the original form of words is the most faithfully preserved.

would certainly not have escaped his usual sagacity and profoundness of thought, that the greatest part of those inflections are merely additional particles, whose proper signification, where it can be discovered, is more or less connected with the modification of sense induced by them upon the verb or noun. The only real inflections which I consider possible in a language, whose elements are monosyllables, are the change of their vowels and the repetition of their radical consonants, otherwise called reduplication. These two modes of inflection are used in the Sanskrit and its kindred dialects to their full extent, and often even, particularly in the former, to a useless redundancy, I mean without indicating a modification of the sense. The Arabic, together with its sister languages, having mostly roots of two syllables, is naturally capable of a greater number of internal inflections, this faculty it particularly displays in its formation of nouns, deriving from the roots a great number of them, without the help of foreign additions, whilst the Sanskrit forms almost all its nouns by means of a great number of suffixes, of which many are easily reduced to their own roots. In other parts of grammar the Arabic almost entirely neglects its capability for inflection, the verbs, for instance, have properly two tenses only (besides an imperative mood); a present, which also is used as a future tense, and a preterit; and these two tenses are chiefly distinguished by their mode of joining the pronouns, the former affixing them before, the latter suffixing them after the verb, as for instance, *TAktub*, *NAktub*, thou writest, we write; *katabTA*, *katabNA*, thou wrotest, we wrote.* The Sanskrit grammar contains a great variety of tenses and moods, partly formed by composition, partly by means of inflection, as we shall endeavour to shew in the following chapter.

* I have here in view the spoken Arabic, which agrees more than the literary with the Hebrew. The latter has a few tenses more, formed by terminations following the final radical. So the aorist *YAktub*, which alone occurs in the spoken dialect, gives origin to *YAktubu*, *YAktuba*, and *YAktubanna*. It would lead us too far beyond our immediate object to enter into any discussion, whether these tenses existed originally in the language, or whether they are an invention of grammarians after the time of Mahommed.

Of the Verbs.

A verb, in the most restricted meaning of the term, is that part of speech, by which a subject is connected with its attribute. According to this definition it would appear, that there can exist only one verb, namely, the substantive verb, in Latin *esse*; in English, *to be*. But even these are sometimes used as attributive verbs, as in the phrase, *Deus est*, There is a God; here the attribute ascribed to the subject *Deus*, is expressed by the verb *est*, he is. This verb is more generally used as a mere grammatical *copula*, without conveying the idea of existence. In the phrase, *homo est mortalis*, the verb *est* merely ascribes the attribute *mortalis* to the subject *homo*; we do not think at all of its expressing existence. In fact, existence is sufficiently expressed by the word *homo*, which conveys a complex idea, comprising that of existence. The only quality, supposed as unknown or not expressed by the word *homo*, is mortality, which the verb *est* attributes to the subject. One who does not exist, cannot die, and it would be superfluous to say, first, that man exists, and then state that he is subject to death. Again, if we do not renounce the idea of existence, which *est*, used as an attributive verb, expresses, then the phrase, *homo est mortalis*, instead of a simple logical proposition, offers a complex one. If after having said “*This man is . . .*” one stops suddenly, the hearer remains in expectation of what this man is, the word *is* appearing to him only a connecting particle, which does not inform him of any thing, but is only the mean of informing. The Spanish language makes use of *estar*, derived from the Latin *stare*,* as a substantive verb, but here certainly we abstract from the original meaning of standing, as it may be applied to subjects sitting or lying.

It appears to me, that it is from the want of a mere grammatical *copula*, that languages make use for this purpose of a verb already attributive; but among attributive verbs, *to be* is certainly the most convenient, because every subject, to

* The French imperfect *j'étois*, originally written *j'éstois*, comes from the same verb.

which an attribute is ascribed, exists, or is at least supposed to exist. An attribute which may be expressed by an adjective can be included in the verb itself, and such attributive verbs incline more towards the nature of adjectives than that of verbs in their grammatical functions. Languages of a structure similar to that of the Greek, Latin, &c. can express by one verb of this kind a whole logical proposition, in which, however, that part of speech which expresses the connexion of the subject with its attribute, which is the characteristic function of the verb, is generally entirely omitted or understood. The Latin verb, *dat*, expresses the proposition, he gives, or he is giving: the letter *t*, indicating the third person, is the subject, *da* expresses the attribute of giving, and the grammatical *copula* is understood. In the verb *potest*, the latter is expressed, and *potest* unites in itself the three essential parts of speech, *t* being the subject, *es* the *copula*, and *pot* the attribute.

After these observations the reader will not be surprised, if in the languages, which we are now comparing, he should meet with other verbs, constructed in the same way as *potest*, or if he should discover that some tenses contain the substantive verb, whilst others have rejected it, or perhaps never used it. He will rather feel inclined to ask, why do not all verbs in all tenses exhibit this compound structure? and the absence of the substantive verb he perhaps will consider as a kind of ellipsis. That he may be better enabled to form his opinion, it will be well to begin our comparison with the substantive verb, explaining its entire conjugation, from which it will be easy to make due application to that of other verbs. There are two roots in Sanscrit expressing to be, *As* and *Bu*, answering to the Latin roots *Es* and *Fu*; the former is almost solely employed to express the grammatical junction between subject and attribute, it is defective in its conjugation, and, in some measure, irregular; the latter has a complete conjugation, it supplies the deficiencies of the former, like the Latin *Fu*; and almost all words connected with the idea of existence are derived from it. In several Teutonic dialects, ancient and modern, the verb substantive is formed from two different roots, corresponding with those in

Sanskrit. The English root *Be* has a striking similarity with the Indian *B'ù*; and *As* assumes in English the form of *Ar* (forming thou *art*, we *are*, &c.) the change of *S* into *R* being extremely frequent in Sanscrit as well as in several of its kindred languages. In German the first and second person, singular, of the present tense, *ich bin*, *du bist*, correspond with the Sanskrit root *B'ù*, and all the remaining persons with *As*. The present tense, which expresses the real conjunction of a subject with its attribute, without any restriction, is formed in Sanskrit by the mere addition to the root of the characteristics of the person. These are throughout all the tenses, with a few exceptions, *M* for the first person, singular and plural, *V* for that of the dual; *T* for the third person of the three numbers, and, the present tense excepted, for the second, plural; *S* for the second of the singular, and *T'* for that of the dual, and the plural of the present tense, and indeed of many tenses, particularly of the middle form, also of the singular number.

In exact conformity with the Sanskrit, *M* is also the characteristic of the first person, singular and plural, in the Greek, Latin, and Teutonic languages, but in the Gothic only of the plural. In Greek μ is always changed into ν , at the end of a word, a situation in which μ never appears, and therefore in Greek ν is the characteristic of the accusative case, which is denoted by an *m* in Sanskrit and Latin. This rule extends to the first person of verbs, where ν takes the place of μ , if it is not followed by any termination. In the language of the Franks also, *n* distinguishes the first person, singular, of the present tense, and in the plural, where this characteristic is followed by the termination *es*, it assumes its original form *m*, as *machon*, I make, *machomes* we make. In Latin the *m* of the first person singular has been more carefully preserved in the conjunctive than in the indicative mood, where it remains in the imperfect and pluperfect only, and in the future tense of the third and fourth conjugations; the present tense of the verbs *sum* and *inquam* excepted.

The characteristics of the other persons in Greek, Latin, and the Teutonic languages will likewise be found to agree, more or less, with those of the Sanskrit. That these charac.

teristics are real pronouns, or the radical consonants of them, will appear perfectly evident when we come to treat of the declension of pronouns.

In the present tense the pronominal consonants *M*, *S*, *T* of the singular number and of the third person plural, are articulated with a short *i*. *Mi* joined to the root *As*, forms *asmi*, I am. 'ΕΣ, which is to be considered as the root of the substantive verb in Greek, connected with the syllable *μι*, should form *ἐσμί*, but the radical Σ, followed by the characteristic *M*, was changed in the Doric dialect into *M*, (*ἐμμί*) for sake of euphony, in the same way as the Sanskrit dative *tasmai*, to him, has assumed in Gothic the form of *thamma*. More generally *ἐσμί* was contracted into *εἰμί*, whilst in the plural, *ἐσμέν* is more common than its contract form *εἰμέν*. The Latin derived from the root *Es* the obsolete form *esum*, which was changed into *sum*; in Gothic the radical *S* is rejected in the first person of the present tense, but *im*, I am, is perhaps the only instance of the Gothic preserving the characteristic *m* in the singular. By the addition of the pronominal syllable *si*, to the root *As*, should be formed *assi* in Sanskrit, but one *s* has been rejected, and *asi*, thou art, agrees with the Latin *es* and the Gothic *is*. The ancient *ἑσσί* in Greek, derived from the root 'ΕΣ by the addition of the pronominal syllable *σι*, has certainly preserved the original form in its greatest purity. 'Εσσί was in later times contracted into *εἶς*, like *ἐσμί* into *εἰμί*. The Sanskrit third person *asti*, he is, is almost entirely identified with the Greek *ἑστί*, from which also the Latin *est*, and the Gothic *ist* are little different. In the plural, as well as in the dual, the Indian root *As* loses, in an irregular way, its radical vowel, but the characteristic *M* in the first person plural of the present tense, receiving the termination *as*, we find *smas*,* we are, instead of *asmas*, in which we recognize the Doric *ἐσμές*, which again claims, with greater appearance of right, to be considered as the original form. In Latin we have *sumus* and the ancient *esumus*, in Gothic *siyam*. The second person

* S at the end of a word is subjected in Sanskrit to several changes, depending upon the rules of euphony, but it will be well in this comparison to preserve it always in its original form.

in Sanskrit is *st'a*, you are, instead of *ast'a*, which we find preserved in the Greek *ἑστέ*; the Latin *estis* corresponds more with the Indian dual *st'as*, which is used instead of *ast'as*. In the Gothic *siyuth*, we find the second person indicated by an aspirated *t*, as in the Sanskrit. The third person in the ancient language of India is *santi*, they are, which will be found exactly to resemble the Latin *sunt* and the Gothic *sind*. The Doric *ἐντί*, which was changed into *εἰσὶ* by the influence of the same principle that transformed *τύπτοντι* into *τύπτεσι*, is certainly mutilated, and as in all the persons hitherto considered, we found the radical *Σ* inherent, we might fairly conclude that the original shape of *ἐντί* was *σεντί*, or *ἑσεντι*, which would be analogous to *ἑσμεν* and *ἑστέ*.

The following table offers a coherent view of the present tense of the Sanskrit verb substantive :

	Sing.	Dual.	Plur.
1	<i>As mi</i>	<i>S vas</i>	<i>S mas</i>
2	<i>A si</i>	<i>S t'as</i>	<i>S t'a</i>
3	<i>As ti</i>	<i>S tas</i>	<i>Sa nti</i> .

In order to shew the conjugation of the present tense in a more regular verb, we choose the root *Pà*, to reign, which may be compared with the Doric-Greek, Latin, and Gothic roots, *ΦΑ*, *Da*, and *Hab* :

	Sans.	Greek.	Latin.	Goth.
Sing.				
1	<i>Pà mi</i>	<i>φᾶ μί</i>	<i>Do</i>	<i>Haba</i>
2	<i>Pà si</i>	<i>φῆς</i>	<i>Da s</i>	<i>Habai s</i>
3	<i>Pà ti</i>	<i>φα τί</i>	<i>Da t</i>	<i>Habai th</i>
Plur.				
1	<i>Pà mas</i>	<i>φα μέσ</i>	<i>Da mus</i>	<i>Haba m</i>
2	<i>Pà t'a</i>	<i>φα τέ</i>	<i>Da tis</i>	<i>Habai th</i>
3	<i>Pà nti</i>	<i>φα ντί</i>	<i>Da nt</i>	<i>Haba nd</i>
Dual.				
	Sansk.	Greek.		Goth.
1	<i>Pà vas</i>	—————		<i>Hab os</i>
2	<i>Pà t'as</i>	<i>φα τόν</i>		<i>Hab ats</i>
3	<i>Pà tas</i>	<i>φα τόν</i>		—————

Note. The Dual was extensively used in the language of the Goths, it occurs very frequently in the gospels translated

by Ulphila. The first person always terminates in *os*, perhaps but little differing from the Sanskrit termination *vas*. The second person has *ts* for its characteristic, which is joined to the verb by one of the vowels, *a*, *i*, *u*, *ai* or *ei*. In the gospel of John, c. xiv. 23, Christ, speaking of himself and his divine Father, says: *Καὶ πρὸς αὐτὸν ἐλευσόμεθα, καὶ μονὴν παρ' αὐτῷ ποιήσομεν*; this Ulphila has translated word for word, employing the present tense with a future signification, in the following manner: *yah du imma galeithos, ya salithvos* at imma gatauyos*. Mark xiv. 13, Christ says to two of his disciples: *ὑπάγετε*, this is translated by *gaggats*; in Sanskrit it would be *gach'a-tam*. In the first person plural the Frankish dialect offers a more striking similarity than the Gothic to the Sanskrit, Greek, and Latin, having the termination *mes*, answering to the Sanskrit *mas*, the Doric *μεσ*, and the Latin *mus*. The whole of the present tense of the Frankish language will perhaps be found to coincide more than the Gothic with the above languages. The root *Mach* is thus conjugated:

Sing.	Plur.
1 <i>Macho n</i>	<i>Macho mes</i>
2 <i>Macho s</i>	<i>Macho t</i>
3 <i>Macho t</i>	<i>Macho nt</i>

The first person sing. agrees with the Greek termination *ον* in the imperfect and second aorist; for the Frankish dialect seems in conformity with the Greek, to change a final *m* into *n*.

The middle voice expresses the reflection of the action upon the actor himself, but is often used in Sanskrit with an active signification. In order to effect its derivation from the active voice, those persons terminating with an *i*, change this vowel into *è*; so *b'avati*, he is, *b'avanti*, they are, and *b'avasi*, thou art, are changed into *b'avatè*, *b'avantè*, *b'avasè*. If the Greek *αι* had the sound of a French *ai*, which is that of an Indian *è*, then the Greek derivation of *δίδοται*, *δίδονται* from the Doric and original forms of the active voice, *δίδωτι*, *δίδοντι*, would agree exactly with the method employed in Sanskrit; the second person *δίδοσαι* supposes the active to have been *δίδωσι*, but *σι*, which characterizes in Sanskrit the second person of the present tense, active voice, has in Greek only been preserved in *ἐσ-σί*, thou art. From the first person

* This is the accusative, plural, of *salithva*.

δίδομι is derived the middle form *δίδομαι*, after the same principle. In Sanskrit the characteristic of the first person is lost in the singular, throughout all tenses of the middle voice; *b'avàmi*, I am, does not form *b'avàmè*, as might have been expected, but *b'avè*, which certainly cannot claim such high antiquity as the Greek *δίδομαι*. As *τύπτομαι*, *τύπτεσαι* (which has been changed into *τύπτεαι* and *τύπτῃ*) and *τύπτεται* are in complete analogy with *δίδομαι*, &c. we may thence conclude that the present tense of all active verbs terminated originally in *μι*, *σι*, *τι*. The change of *τύπτομι*, *τύπτει* into *τύπτω*, *τύπτει* has not affected their derivatives of the middle voice, which, having preserved the original form, point out the primitive state of their corresponding persons of the active.

All the persons of the Sanskrit middle voice are not in such intimate connexion with their corresponding persons of the active voice, but one principle chiefly predominates in the formation of the middle voice, in Sanskrit as well as in Greek, namely, the increase or lengthening of the termination. I consider therefore the origin of the middle form as the mere result of inflection, in its restricted use, without the help of foreign addition. The following table exhibits the conjugation of the present tense, middle voice, in comparison with that tense of the active.

Sing.		Dual.	
<i>B'avà mi</i>	<i>B'av è</i>	<i>B'avà vas</i>	<i>B'avà vahè</i>
<i>B'ava si</i>	<i>B'ava sé</i>	<i>B'ava t'as</i>	<i>B'avè t'è</i>
<i>B'ava ti</i>	<i>B'ava tè</i>	<i>B'ava tas</i>	<i>B'avè tè</i>
Plur.			
1 <i>B'avà mas</i>		<i>B'avà mahè</i>	
2 <i>B'ava t'a</i>		<i>B'ava d'vè</i>	
3 <i>B'ava nti</i>		<i>B'ava ntè.</i>	

Potential mood.—After the present tense the potential mood is treated of in the Sanskrit grammars. Its characteristic is a long *i* inserted between the root and the pronominal characteristics, to which is prefixed in most of the conjugations a long *a* in this tense, so that the above *ì* is to be changed into the semi-consonant *y*, according to the rules of euphony.*

* That I am authorized to consider *ì* as the essential characteristic of the potential mood appears from the middle voice, where *à* is not placed before

Whatever may have been the original pronunciation of *τύπτοιμι*, *τύψαιμι*, and *διδόην*, *τιθείην*, &c. it is certain that the vowel *ι*, inserted just in the same way as *ì* is in Sanskrit, between the root and the personal termination, characterizes the Greek optative. Also in Gothic, this way of forming the potential mood prevails, from *Sokyam*, we seek, is derived *Sokyaïma*, we may seek. Although it becomes pretty evident, by the proper names occurring in Ulphila's translation of the Gospels, that *ai* was pronounced in Gothic as in French, namely, like a long *ê*, this contracting of two vowels into one sound does not prevent each of them from retaining its proper signification. In Sanskrit *i* is always contracted into *è* with a preceding *a*, without affecting its meaning, thus *jayàt* becomes *jayèt*, he may be victorious, the two words *nama idam* are contracted into one, *namèdam*, according to the rules of euphony. Even in Greek *τύψαιμι* was probably pronounced *tupsèmi*; in this word *ι* still remains the only characteristic of the optative, as well as in *τιθείην*, *διδόην*, &c.

The Indian root *As*, to be, rejects, in an irregular way, its radical vowel throughout the whole potential mood, making *Syàm*, I may be, instead of *Asyàm*. The conjugation of *Syàm* may be compared with that of *Siem*, occurring in Plautus, and with the Gothic *Siyau*:

	Sansk.	Sing.	Lat.	Goth.
1	<i>Syà m</i>		<i>Sie m</i>	<i>Siyau</i>
2	<i>Syà s</i>		<i>Sie s</i>	<i>Siyai s</i>
3	<i>Syà t</i>		<i>Sie t</i>	<i>Siyai</i>
		Plur.		
1	<i>Syà ma</i>		<i>Sie mus</i>	<i>Siyai ma</i>
2	<i>Syà ta</i>		<i>Sie tis</i>	<i>Siyai th</i>
3	<i>Syus</i>		<i>Sie nt</i>	<i>Siyai na.</i>

Note. *Syàm*, *syàs*, &c. is properly instead of *sìàm*, *sìàs*, &c. which agrees perfectly with the Latin *siem*, *sies*. In

the pronominal terminations, and therefore the *y* resumes its primitive form, as *adyàt*, *adìta*. It appears also from the first and fourth conjugations, where *à* is not placed before the personal characteristics, but because of the *a* preceding in these conjugations, the *ì* is contracted with it into *è*, as *b'avèt*, instead of *b'avàt*.

Latin and the Doric dialect, we might add also the language of the ancient Franks, the *M* of the first person is in the plural always followed by the termination *us*, *ες*, *es*, but in Sanskrit *mas* appears in the present and future tense only, in the others *s* is rejected, and *syàma* therefore agrees more with the Gothic *siyaima* than with the Latin *siemus*. It may be proper to observe, that it seems not improbable that in Sanskrit also, *mas* originally stood in all the tenses, and that in *admas*, we eat, (*ἔδομες*), *pàmas*, we reign, &c. the termination *as* properly denotes plurality, whilst *m* which belongs also to the singular, indicates the first person. It may perhaps not be out of place here to observe, that Sanskrit nouns also indicate plurality, in the nominative and accusative, by the termination *as*, corresponding with the Greek terminations *ες* and *ας*, and with the Latin *es* of the third declension.

The Gothic language loses the characteristic of the third person, in the singular and plural of the potential mood. With respect to the Indian *syus*, they may be, I have to observe, that here also the third person seems to me to be unexpressed, and the termination *us* only to indicate plurality. In the second preterit also, which is formed by reduplication, the third person terminates with *us* in the plural and dual, the only difference, I perceive, between the two numbers is this, that the dual expresses the third person by its usual *t*, which the plural leaves out. Thus in *b'ab'ùvatus*, both are, I find plurality expressed together with the third person; in *b'ab'ùvus*, they are, I consider the idea of plurality alone is indicated, the usage of the language supplying the want of the pronominal characteristic. From the conjugation of the present tense of the substantive verb, in Greek, we could easily draw the conclusion that *ΕΣ* is the root of it. If this be the case, we cannot but consider the optative *εἶην* as a corrupt form, the radical *Σ* being rejected. *Εἶην* stands probably instead of *σεῖην* or *ἐσεῖην*. It is very well known how addicted the Greek language is to reject *σ*, particularly where it stands between two vowels—*ἐτύπτεσο* is changed into *ἐτύπτεο*, which by contraction becomes *ἐτύπτου*; according to the same principle of rejecting *σ* *τύπτουλο* is formed from *τύπτοισο*.

The striking analogy between the Greek optative, particularly of that of verbs in μ , and the Sanskrit potential mood will appear in the clearest light by comparing $pà\bar{y}à\bar{m}$ (instead of $pà\bar{i}à\bar{m}$) *I may reign*, with $\phiαίνν$, *I may speak*:

Sing.		Dual.	
1 $Pà\bar{y}à\bar{m}$	$\phiαίνν$	$Pà\bar{y}à\bar{va}$	—
2 $Pà\bar{y}à\bar{s}$	$\phiαίνς$	$Pà\bar{y}à\bar{tām}$	$\phiαίντον*$
3 $Pà\bar{y}à\bar{t}$	$\phiαίν$	$Pà\bar{y}à\bar{tām}$	$\phiαίντην$
Plur.			
1 $Pà\bar{y}à\bar{ma}$		$\phiαίνμεν*$	
2 $Pà\bar{y}à\bar{ta}$		$\phiαίντε$	
3 $Pà\bar{y}us$		$\phiαίνσαν$	

Observations.—The μ of the first person is in Greek changed into ν , conformably to the prevailing principle of the language, which does not permit the use of a final μ . The characteristic of the third person is wanting, and so it always is, where it would stand at the end of a word. Neither τ nor δ ever close a word in Greek, unless the final vowel be omitted, because of a vowel beginning the following word; and thus it is accounted for, why we have $\acute{o}$, η , $\tau\acute{o}$, and not $\tau\acute{o}\Delta$ or $\tau\acute{o}\tau$ like the Sanskrit pronoun sas , $sà$, tad , or tat , of which the accusative case is tam , $tām$, tad , or tat , corresponding with $\tauόν$, $τήν$, $\τό$. The Latin language has, in many instances, preserved the grammatical forms in a purer state than the Greek, the neuter of several pronouns is in it denoted by a d ; neither does the Latin acknowledge the propriety of rejecting the final t , but the Italian, following the example of the Greek and yielding too much to the love of euphony, rejects the final t of its parent tongue; $amabat$ becoming $amava$. In the middle voice the Sanskrit suffixes a short vowel to the characteristic of the third person singular, this method being followed in Greek also, the final o prevented the characteristic τ from being rejected in the middle voice. The long a which precedes in Sanskrit the pronominal letters throughout the active, is omitted in the middle voice, and its corresponding η in Greek, which is really an astonishing coincidence, follows the example,— $dadyāt$, he may give,

* I preserve intentionally the primitive form, instead of the contracted $\phiαῖτον$, $\phiαῖμεν$, &c.

forms *dadīt-a*, and *dadyàma*, we may give, *dadīmahi*; and so in Greek *δίδοιη*, which originally must have been written *δίδοιητ*, forms *δίδοιτ-ο*, and *δίδοιμεν* makes *δίδοίμεθα*. The similarity, which *φαίητον*, *φαίητην*, evince with *pàyâtām*, *pàyâtām*, where the second and third persons dual in both languages, are distinguished merely by the measure of the personal termination, is too striking to be overlooked.

The first conjugation, as we have already observed, does not in the potential mood prefix a long *a* to the personal characteristics, but as this conjugation in the first four tenses suffixes an *a* to the root, this vowel is contracted with the *ì*, indicating the potential mood, into *è*; so the root *pach* forms *pachèt*, *pachès*, *pachèma*, &c. which agrees with the Latin *laudet*, *laudes*, *laudemus*, &c. Now, if this striking analogy is not merely accidental, which can hardly be believed of a language so constantly following the grammatical principles of the Sanskrit, then we must admit, that *laudem*, *es*, *et*, &c. are contractions of *laudAIM* (agreeing with *edim* of Plautus) where *a* would be the character of the first conjugation (*laud* being the root), and *i* that of the conjunctive. It is worthy of remark, that even in Italian the conjunctive is constantly characterized by an *i*; *amo* becomes *ami*, *amate*, *amiate*, *amano*, *amino*, *ho*, I have, is changed in the conjunctive into *abbia*, &c. It is very improbable that we should succeed in explaining with certainty the original meaning of every syllable or word, which in grammar produces a slight modification of the sense of verbs or nouns, but this ought not to prevent us from seriously inquiring into it. The reason why the vowel *i* expresses the potential mood cannot be discovered in Greek, in Latin, nor perhaps in any other European language, but in Sanskrit the radical element *ì* expresses wishing, desiring; and what syllable could be more properly employed to indicate an optative than the one to which the Hindu grammarians had given the primary signification of *Kànti*, *having desire*? I will not affirm that this is the primitive meaning of the root *ì*, and that the grammarians had a sufficient reason for putting *Kànti* at the head of their explanation, but certain it is, that *ìmas* has, among other significations, that of, *we desire or wish*. Now it is remarkable

that the sense expressed in Sanskrit, and the languages here compared with it, by a syllable, signifying desire, incorporated into the verb, is in English, and often in German also, expressed by detached auxiliary verbs, having the primary signification of wishing.* The German *moegen* has frequently this signification, and the English *may* is of the same origin, derived from the Saxon *magan*, in Gothic likewise *magan*. It is the genius of modern languages to express, by separate words, what in ancient languages was united into one body. In Sanskrit, Greek, and Latin, &c. the pronouns, for instance, are suffixed to the verb, but in English, German, French, &c. they are placed separately before, and where the pronouns, formerly united with the verb, have left some remaining traces, they have now lost their signification, and therefore a repetition of the signs of the persons is become necessary. In the French, “*nous aimames*” the first person is expressed twice, and so is the third person in the German *er liebt*, he loves. The third person singular is generally indicated by a *t* in German verbs, in conformity with the Sanskrit, Latin, and Gothic, but notwithstanding this *t*, originally a pronoun of the third person, the pronoun *er* is always placed before the verb.

Imperative Mood.—That we may preserve the order in which the conjugation is exhibited in Sanskrit grammars, I shall now proceed to treat of the Imperative. This mood has no particular characteristic to express command, like as we discovered in the preceding tense, an incorporated *i*, indicating wish, or desire. It is, however, sufficiently distinguished from the present tense by its personal terminations, which in the dual and plural it has in common with the potential mood, and generally also with that preterit, which is formed by a prefixed *a*. The first person singular is expressed by an *n* instead of an *m*, and the second by an *h* instead of *s*. In this person the root *As*, to be, is entirely irregular, also in the second and third persons, dual and plural, its radical vowel is rejected, which rejection could certainly not have taken place but subsequently to the age, when emigrating colonies introduced into Greece and Italy,

* In Notker we read, “*I mahta baldur weinon*,” vellem vehementer plorare.

languages so intimately connected with that of India. If we restore the rejected *a*, then *Asta*, *Astām*, *Astām* will be exactly identified with ἔστε, ἔστον, ἔστων, and the Latin *este*. Other coincidences will be discovered in the following table:

Sing.		Dual.	
1	<i>Asà ni</i>		<i>Asà va</i>
2	<i>Ed'i</i>		<i>S tām, ἔσ τον</i>
3	<i>As tu, ἔς τω, es to</i>		<i>S tām, ἔσ των</i>
Plur.			
	1	<i>Asà ma</i>	
	2	<i>S ta, ἔσ τε, es te</i>	
	3	<i>Sa ntu, sun to.</i>	

The similarity between the imperative of the Sankrit, Greek, and Latin languages will be better understood by comparing that of the roots *Pà*, *ΦΑ*, and *Da*.

Sing.		Dual.	
1	<i>Pà ni</i> —		<i>Pà va</i> —
2	<i>Pà hi</i> φα θί		<i>Pà tām</i> φα τόν
3	<i>Pà tu</i> φα τώ <i>Da to</i>		<i>Pà tām</i> φα τών
Plur.			
	1	<i>Pà ma</i> —	
	2	<i>Pà ta</i> φα τέ <i>Da te</i>	
	3	<i>Pà ntu</i> φά ντων <i>Da nto.</i>	

Note. Sanskrit roots of the first, fourth, sixth, eighth, and tenth conjugations do not join any pronominal letter to the second person singular, of the imperative mood; so, for instance, *b'ava-si*, thou art, makes *b'ava*. Herewith agree the Greek verbs in *ω* and all Latin verbs, as *τύπτε*, *ama*, *mone*, *audi*, &c. Also in the Teutonic dialects, the second person singular of the imperative is generally the mere root, without any addition but a vowel. Only the Gothic dialect uses the potential mood as imperative. The Attic form of the third person plural, *φάντων*, is more than *φατωσαν*, used in its place, analogous to *pàntu* and *danto*, and more conformable also to the practice prevailing in the Doric dialect, of indicating plurality by an *ν* prefixed to the characteristic of the third person.

First preterit Tense.—This tense is formed by means of a short *a*, prefixed to the verb in the same way as the Greek

augment. This *a* I cannot consider as a mere inflection, in the restricted meaning of the word, but it rather appears to have nothing to do with the root of the verb, and to be a foreign addition endued with a proper signification. I do not believe that at first it specifically expressed past time, and that therefore it possessed original adaptation to form a preterit tense; but languages are very seldom capable of expressing fully what they pretend to express; of every thing in nature, of every animal, of every plant, speech can seize only one quality, in order to express the whole by it. The elephant is called in Sanskrit *dantin* (nom. *danti*) from its teeth, or *dvirada* (endued with two teeth), or from his trunk serving him for a hand, he is called *hastin* or *karin* (nom. *hasti*, *kari*); from his habit of taking water in his trunk, and then drinking when he pleases, he is called *dvipa* (twice drinking). Were the Sanskrit to express all the qualities of the elephant by one word, it would be obliged to join all those mentioned together, and to add a great number of others. The serpent is called, from its motion, *sarpa*, or *pannaga*, going not with feet, (from *pad*, foot, *na*, not, and *ga*, going); or *uraga*, going upon the breast. This will remind us of that passage of Scripture, in which God cursing the serpent, says, "Because thou hast done this, thou art cursed above all cattle, and above every beast of the field; UPON THY BELLY SHALT THOU GO, and dust shalt thou eat all the days of thy life." Besides many other names the serpent has also, in Sanskrit, that of *pavanàs'ana*, wind-eating. Although in this language, admirable for its beautiful structure, the reason of appellation is much easier ascertained than in Greek and Latin, it is however sometimes impossible to discover from what quality a thing has received its name; the less striking qualities not seldom give rise to the appellation of objects. It is gratifying to observe, how with apparently few means, by a wise employment of them, languages succeed to convey in an unequivocal manner, an immense number of ideas. But, as language is incapable of expressing all qualities, even of material things, by one word; being obliged to indicate one quality only; how could it be constantly possible fully to convey the finer shades of modal and temporal meaning? And if languages

here likewise bend to the necessity of sometimes expressing a part, how can the philologist always determine with certainty, what part is expressed, and what supplied by the usage of language? Precisely such is the case with the *a*, prefixed to verbs in order to form a preterit. What it originally signified, I do not know, but this I know, that it is prefixed in the same manner to nouns with the sense of a negative or privative particle; for instance, *adīna*, happy (not miserable), *anindita*, dear (not despised), *abala*, weak (without strength), &c. It would not by any means be contrary to the general practice of languages, if by the words *adīna*, *anandita*, exceeding the primary sense of the negative particle *a*, the Sanskrit had also signified one *who has been miserable, who has been despised*—but who is not now miserable, not now despised; in that case there might have been a closer connexion between *a* negative and *a* preterit, than would be evident at first sight; or in other words, the particle *a*, expressing in its primitive sense negation, can very properly in a secondary meaning indicate past time, that is to say, deny the existence of the action or quality with respect to the present time. One might ask, why in this way *a* is not as well employed to form the future tense, for neither in this tense does the action or quality expressed by the verb, actually exist: but the usage of language is despotic, arbitrarily employing its means, without controul. Another objection could be taken against the original identity of the negative *a* and the *a* expressing past time, from the case of the first being employed in Greek under the form of *α*, the second under that of an *ε*, so that different forms answer to different meanings. But it is very often the case, that one original word produces, in languages originating from others, two, three, or more words, with slight variations in form and meaning; and this practice has particularly contributed to the copiousness of the English language. For instance, to *stay* and to *stand* have the same origin, both are variations of the Sanskrit root *Stā*, to stand. *I stay* agrees with the German verb, *ich stehe*, signifying I stand, of which the preterit is, *ich stand*, (I stood), which is considered as a new root in English.

The personal terminations of the first preterit, in Sanskrit,

are, in some measure, different from those of the present tense, but this difference, in my opinion, does not contribute any thing to the change of the sense, which is sufficiently and solely expressed by the prefixed *a*. It ought to be noticed also, that these terminations, whilst they differ from those of the present tense, agree generally with those of the potential mood, the signification of which is much more widely remote than the present tense from that of the preterit. In Greek it is likewise the augment only, which evinces the true characteristic of the imperfect, the terminations of the dual and plural, the third person excepted, agree with those of the present tense. The perfect agreement of the Sanskrit first preterit with the Greek imperfect will be fully explained by a comparison of the conjugation of *Apām* with that of the Doric ἔφαν.

Sing.	Dual.	
1 <i>Apā m</i> ἔφα ν	<i>Apā va</i> —	<i>Apā ma</i> ἔφα μες
2 <i>Apā s</i> ἔφα ς	<i>Apā tām</i> ἔφα τον	<i>Apā ta</i> ἔφα τε
3 <i>Apā t</i> ἔφα	<i>Apā tām</i> ἔφα την	<i>Apā n</i> ἔφα ν

Note. It has been already observed, that the Greek is abhorrent to the use of a *τ* at the end of a word. With respect to the language of the Hindus we have now to remark, that in the state in which we find it preserved in that portion of their literature remaining extant, as far as I have been able to ascertain by a careful examination, a final *t* never occurs with an *n* preceding. This letter, preceding a final *t*, always causes it to be rejected. So, for instance, to the accusative of the present participle *adant-am*, (*edent-em*, ἔδοντ-α), to the plural *adant-as* (*edent-es*, ἔδον-τες) to the feminine *adan-ti*, answers the nominative masc. *adan*, ἔδων,* instead of *adant*, ἔδοντ. One might say that *t* is afraid in Sanskrit to appear at the end of a word, preceded by an *n*, and that the Greek *τ* is still more timid; wherever they can avail themselves, if I dare so say, of the shelter of a following vowel, then they resume their deserted station. Thus, as from the singular *ab'avat*, he was, the middle voice is derived by suffixing an *a*, making *ab'avat-a*; in a similar way

* It is the practice of the Greek to lengthen the vowel, when in the nominative of the third declension the final consonant is rejected.

from *ab'avan*, they were, or rather from *ab'avant* (as it originally must have been written) is produced the middle voice *a'bavant-a*. It is scarcely necessary to add, that the Greek middle voice likewise, ἐτύποντο-ο and ἐτύπτετο-ο prove the anterior existence of the active forms ἔτυποντο and ἔτυπτετο. From these observations it would follow that in *apàn* and ἔφαν* there is only plurality expressed, for, in the present tense, *pànti* and *φαντὶ* are distinguished from their corresponding singular *pàti* and *φατὶ* by mean of an *n* prefixed to the characteristic of the third person. This way of indicating plurality I consider as a mere inflection, because a nasal is sometimes even inserted in the midst of a root, where it may be regarded as modifying only the pronunciation of the vowel; and in the Sanskrit alphabet the *anusvāra*, a sign which may represent any of the five nasals, is ranged among the vowels.

It will not be out of its place here to observe, that the Gothic language has a passive, which is formed in exact analogy with the above mentioned *ab'avata*, ἐτύπτετο, *ab'avanta*, ἐτύποντο, namely, by addition of an *a* to the personal characteristics. “*Ni liugand, ni liuganda*” is Ulphila’s translation of the Greek text, ἕτε ὑπανδρεύον, ἑδέ ὑπανδρεύονται; they neither marry, nor are given to marriage. S. Mark xii. 25.—“*Afletanda thus fravaurhteis theinos*” is the Gothic translation of ἀφένονται σοι αἱ ἁμαρτίαι σε, Thy sins are forgiven thee, S. Luke v. 20.—*Afletanda* is derived from the active *afletand*.—Conformably to a rule of euphony a final *S* in Gothic is always changed into *Z*, when a vowel is joined to it, therefore the second person singular, terminating with *S* in the active, cannot become *Sa* in the passive, but *Za*. However, as *haitis*, *vocas*, *haitith*, *vocat*, do not form the passives *haitiza* and *haitida*†, but *haitaza*, *haitada*, changing into *a* the vowel *i*, which in the active connects the personal characteristics with the root;—it puzzled the grammarian Hickes, and whilst he explains very properly the origin of the above *liugand-a*, *afletand-a*, and other similar forms,

* I shall perhaps succeed in proving ἔφασαν, which is more commonly used for ἔφαν, to be of a compound form, when I shall have occasion to speak of the incorporation of the substantive verb with the attributive verbs.

† *Th* is always changed into *d*, when followed by a vowel.

in order to explain *haitaza*, *haitada*, *afnimada*,* &c. he has recourse to the passive participle, formed by a suffixed *d*. But unfortunately the roots, *hait*, *nim*, &c. do not form their passive participle by a suffixed *d*, but an *n*, conformably to the English participles, *taken*, *given*, &c. Besides, there exists no participle formed by *z* or *s*; the nominative, sing. masc. only has *s* for its characteristic, which disappears in the oblique cases. Hickes ought to have considered, that in Greek also, ἵστης, thou standest, does not form in the middle voice ἵστησαι, but ἵστασαι, resuming its radical *α*, for which in the active, an *η* has been substituted. From the first and third person, plural, *haitam*, *haitand*, and from the first, singular, *haita*, one would expect the second and third to be *haitas*, *haitath*, but, although the usage of language here chose an *i*, to connect the personal characteristics with the root, this has not affected the passive, where the *a* resumes its place.

Where the active already terminates with an *a*, in the passive, this vowel is changed into *au*, much after the same principle that changes the final *i* of the present tense, Sanskrit and Greek, in the middle voice† into *è* (being the contraction of *ai*) and *αι*, as *b'avantè*, τύπτονται, from the active *b'avanti* and the Doric τύπτοντι. The third person, plural, of the potential mood terminates with *na* (instead of *nda*) having lost its pronominal letter *d*, in the passive this *d* has preserved its place, and the following *a* is changed into *au*; thus *andhausyaina* (originally *andhausyainda*), *audiant*, makes *andhausyaindau*, ‡ *audiantur*; *gaumyaina*, *videant*, (*gaumyainda*) produces *gaumyaindau*, § *videantur*.

* *Pranfetes hauhistins haitaza*; προφήτης ὑψίστου κληθήσῃ. Luke i. 76.—*Afnimada af im sa bruthfaths*; (ὅταν) ἀπαρθῇ ἀπ' αὐτῶν ὁ νυμφίος. Matt. ix. 15.

† In Greek the passive is in almost all tenses the same with the middle voice; but the Sanskrit has a proper characteristic of the passive, namely, the insertion of the syllable *ya* between the root and the personal terminations, which are the same as those of the middle voice. Thus *Pàtè* is the middle voice of *Pàti*, and *Pàyatè* the passive. It might be said that the change of *i* into *e* indicates the reflection of the action upon the subject, which the passive has in common with the middle voice, and that the syllable *ya* indicates that the subject does not himself perform the action.

‡ Ὅτι ... εἰσακουσθήσονται, *ei...andhausyaindau*. Matt. vi. 7.

§ Ὅπως ἂν φαίνῃσι τοῖς ἀνθρώποις, *ei gaumyaindau mannam*. Matt. vi. 5.

To return now to the Indian substantive verb *As*, we have to observe, that this root, belonging to a conjugation which does not add any servile vowel or syllable, requires necessarily a vowel to connect the pronominal consonants *m*, *s*, *t* with the root, in the singular of the first preterit, which *Pà*, as well as the Greek ΦA , could receive without the interference of a foreign vowel. It is generally a short *a* which performs this office to those roots of the second conjugation terminating with a consonant. Thus *ad*, to eat, which out of *ăăd*, produced by the augment, makes *ăd*, contracting by a rule of euphony two short vowels into their corresponding long one (as $\eta\delta$ in Greek originates from $\epsilon\epsilon\delta$), forms in the singular of the first preterit, *ădam*, *ădas*, *ădat*. The Greek language is here, as in many other instances, less regular than the Sanskrit, because it interposes between the root and personal characteristics, sometimes an *o*, sometimes an *ε*, making $\eta\delta\omicron\nu$ * $\eta\delta\epsilon\varsigma$, $\eta\delta\epsilon$ ($\eta\delta\epsilon\tau\text{-}o$) and not $\eta\delta\omicron\nu$, $\eta\delta\omicron\varsigma$, or $\eta\delta\epsilon\nu$, $\eta\delta\epsilon\varsigma$, &c. which would, at the same time, be more regular and more conformable to the example given in the Sanskrit grammar. In the plural and dual, where the pronominal consonants are followed by vowels, the interfering *a*, being unnecessary, disappears, as *ădma* ($\eta\delta\omicron\text{-}\mu\epsilon\nu$), and not *ăd-a-ma*. The root *As* makes by the augment *ăs*, contracted from *ăăs*, and so in Greek the root $\epsilon\sigma$ produces $\eta\varsigma$ instead of $\epsilon\epsilon\varsigma$. The first person singular is *ăsam* in Sanskrit, in the second and third person *î* is chosen as intermediate vowel, therefore *ăsîs*, *ăsît* stand for *ăsas*, *ăsat*. The Greek verb substantive is mutilated in the singular of the preterit, and this mutilation, I believe, is due to the hatred the Greek idiom constantly shews against Σ .† As $\epsilon\tau\nu\pi\tau\omicron\nu$ stands for the first person, singular, and for the third, plural, originating in the first

* $\eta\delta\omicron\nu$ would be formed by analogy, but is not in actual use.

† Even in Sanskrit *S* is liable to much change, or to total suppression, but only when it appears at the end of a word. In this case it is, conformably to general rules, either changed into *visarga*, having the power of an *h*, or into *r*, or it is changed into *ò*, together with the preceding *a*, or it is dropped entirely; only in a few cases it retains its original shape. The Latin language proves itself more indulgent than the Greek and Sanskrit to *S*. Where it does not substitute an *r* for it, it is always preserved, as well in the midst as at the end of a word: but to the transmutation of *S* into *R*, the Latin is excessively addicted.

case from ἔτυπτομ (plur. ἔτυπτομ-εν, middle form ἔτυπτόμ-ην), in the latter from ἔτυπτοντ (ἔτυπτοντ-ο); thus we may conclude from ἦσαν, they were, which sometimes we find changed into ἦν, in Herodotus, Hesiod, &c. that the first person singular, was originally likewise ἦσαν (ἦσαμ-ην, agreeing with the Sanskrit *āsam*.) The rejection of the syllable σα, which happens occasionally in the third person, plural, became general with respect to the first of the singular. If this was primitively ἦσαν, the second and third must have been ἦσας and ἦσε. But leaving the decision of this question to those who make the Greek language the object of particular investigation, and who cannot but be aware of the love of abbreviation, predominant in this language, particularly when Σ is concerned, we shall only compare the dual and plural with the first preterit of the Indian substantive verb.

Sing.	Dual.	
1 A'sa m	A's va —	A's ma ἦ μεν
2 A'si s	A's tām ἦσ τον	A's ta ἦσ τε
3 A'si t	A's tām ἦσ την	A'sa n ἦσα ν.

The persons here compared with the Sanskrit make it highly credible that ἦμεν originated from ἦσ-μεν, which would be distinguished from the correspondent person of the present tense, ἐσμέν by the mere augment, which distinguishes also ἐσ-τέ from ἦσ-τε.

The S of the Latin root *Es* is changed into *R* in the imperfect, a change which very frequently occurs in Latin, and even in Sanskrit *S* is often changed into *R*, but only at the end of words, and according to invariable rules. In consequence of one of these, for instance, *patis mama*, conjux meus (or rather *mei*, of me) is changed into *patir mama*, because a final *s*, preceded by an *i*, is always changed into *r*, when the following word begins with *m*. Also in all the Teutonic dialects, the Gothic excepted, the change of *s* into *r* frequently occurs; in the Icelandic this permutation is quite characteristic. The Gothic *was*, I was, for instance, whose plural is *wesum*, is in German, in both numbers, changed into *war* (*ich war*, *wir waren*); the English preserves the original *s* in the singular, and changes it into *r* in the plural—*I was*, *we were*. To give another instance, where an original *s* is changed into *r* in Latin, I shall mention the

genitive plural of the first, second, and fifth declensions, terminating with *rum*; but instead of *musarum* we find the obsolete form *musasum*. This I am the more inclined to consider as the original form, because it is connected with the Sanskrit, in which all the pronouns terminate their genitive plural, with *sām*, or, when this termination is preceded by an *è*, with *s'ām*, because *s* always is changed into *s'*, when following an *è*. *E'tàsām* signifies *istarum*, and *kàsām* *quarum*, of which the masculines are *ètès'ām*, *kès'ām*, *istorum*, *quorum*. Pronouns more usually preserve the oldest forms of declension, and, in English, it is well known, the pronouns only, have preserved any traces of declension by final terminations, as, *he*, *his*, *him*; *who*, *whose*, *whom*,—whilst all other words have laid aside the use of them. As a consequence of this fact, we may presume, that *sām*, the characteristic of the genitive plural, was extended originally also to other nouns of the first declension,* at least the supposition is rendered probable by the Latin using the termination *rum*, which is not merely confined to pronouns. The tendency for changing *S* into *R* is too conspicuous not to be observed, and therefore we cannot doubt that *eram* stands instead of *esam*†, which would agree with the Sanskrit *àsām*, and at the same time be analagous with the conjunctive *esem*, which in the oldest Latin stands for *essem*, the *s* having in later times been repeated. Conformably to the principle above explained, *esem* would be derived from *esam*, by the insertion of *i*, the characteristic

* The first Sanskrit declension comprises the first and second of the Latin language, the masculines and neuters terminating their nominative, singular, with *as* and *am*, agree with the Latin terminations *us* and *um*; and the feminines in *à*, answer to the first Latin declension.

† I cannot pass over in silence an old Etruscan form of the first person plural of the substantive verb, found in the 5th Eugubian table: "*Vutu: asama: kuvertu: asaku: vinu: sevakni*," which Lanzi translates: "*Vovimus quartum assum, vinum hornum*." He considers *asama* as making one word with *vutu*, and observes that *devotare*, occurring in Plautus, ought to be remembered.—*Saggio di lingua Etrusca*, t. i. p. 367.—In another part of the same work he observes, that *asama* is connected with *ἐσμέν*, or a similar Grecism. According to my opinion, it is more nearly connected with *eramus*, if restored to *esamus*, its original shape. But rather than with the Greek and Latin, it agrees with the Sanskrit *àsma* (we were), from which it merely differs by an *a*, connecting the personal termination with the root.

of the potential mood, and *ai* would have been contracted into *e*, as it generally happens in the Sanskrit language.

Second preterit tense.—Past time can also be indicated in Sanskrit by a mere internal inflection without having recourse to any thing foreign to the root, by the repetition of the first letter of the radical, which letter, when it is a consonant is articulated by the vowel of the root. This vowel always becomes short, if it be a long one, and the initial consonant, if aspirated, is changed into its corresponding *tenuis*.* Thus *Tup*, to kill, makes by the reduplication *tutup*, *D'ùs'* of similar signification makes *dūd'ùs'*; *Lis'*, to lessen, makes *lilis'*. However the root *B'ù*, to be, notwithstanding it has an *ù* as radical vowel, does not make by the reduplication *bub'ù*, but *bab'ù*; besides, all roots with an *r* vowel, articulate, for sake of euphony, the repeated consonant with an *a*, thus *B'r*, to bear, (*fer*) makes *bab'ar*. What may be considered as an exception in Sanskrit, becomes regular in Greek, in which, whatever may be the radical vowel, the repeated consonant is always articulated with an *ε*, and thus ΤΥΠ does not make *τύτυπ*, but *τέτυπ*.

A more striking resemblance with *tutup*, in regard to the principle of reduplication, expressing past time, is seen in the Latin *cucurr*, formed from the root *Curr*, the first person, plural, is *cucurr-i-mus*, very similar to its corresponding *tutup-i-ma*, and so *momord-i-mus* agrees with the Sanskrit *mamard-i-ma*,† we bruised. In the Gothic language also, the preterit tense is frequently formed by reduplication, but the repeated consonant is always articulated with *ai*, without any regard to the radical vowel. The root *Fah* makes *faifah*—“*Ainshun ni faifah ina, εδεις επιασεν αυτον*,” John viii. 20. *Tek* forms *taitok*—“*Taitok mis sums*,” ηψατο με τις, Luke viii. 46. *Vai* forms *vaivo*—“*Vaivoun vindos, επνευσαν οι ανεμοι*.” Matth. vii. 25, &c.

* There are a few other rules to be observed with respect to the repetition of an initial consonant, for which we must refer to the Sanskrit Grammar of Dr. Wilkins.

† The vowel *i* is very frequently used in Sanskrit as well as in Latin, to connect all kind of suffixes with the root.

The second preterit in Sanskrit has this peculiarity, that neither the first or third person singular, nor the second of the plural number, are indicated by the usual pronominal characteristics; and these three different persons are all alike in their termination, joining only an *a* to the final letter of the root, if it be a consonant. Thus *tutòpa** signifies both, I, and he killed, and *tutupa* signifies you killed. However old this rejection of the personal characteristics may be; because even in Greek the first person singular of the perfect terminates in *a*, and not in its usual *ν*; and in Gothic the first and third person singular of the preterit are always alike, and where this tense is formed by the reduplication, or by the change of the radical vowel, there the first and third persons, singular, terminate in the final letter of the root;—notwithstanding all this, I consider that the omission of the pronominal signs in three different persons, in Sanskrit, was not a defect of the language in the primitive state, whilst Greek, Latin, Teutonic, Sanskrit, &c. still continued one and the same speech. In that remote age *tutòpam*, *tutòpat*, *tutupata*, or *tutupita*, or something similar, may perhaps have occupied the place of those mutilated forms we have mentioned. At least the Greek can boast of having preserved in the second person plural its usual *τε*; *τέτυπατε* is therefore certainly older, and more in conformity with the constant analogy of the Greek and Sanskrit languages, than the Indian *tutupa*. In Latin also *momorditis* appears nearer to the original form than in Sanskrit its correspondent *ma-marda*, which should be *mamardita*, to agree with the first person *mamardima*. In Gothic the second person plural is marked by *th*, as in all other tenses. The Greek language has also this advantage over the Sanskrit, that it has preserved, in the middle voice, the characteristics *μ* and *τ*, which are followed by the termination *αι*: *λέλυμαι*, *λέλεγμαι*, *λέλυται*, *λέλεγται*, suppose an active *λέλυμι*, *λέλεγμι*, &c. from which they would be derived, like *δίδωται*, *δίδονται*, from the Doric *δίδωτι*, *δίδο ντι*. In Sanskrit the second person of the

* In the singular of this tense, the radical vowel receives that increase, which in Sanskrit grammars is called *guna*, it is the change of *a*, *i*, *u*, *r* respectively into *ā*, *ē*, *ō*, *ar*.

middle voice is indicated by *sè*, corresponding with the Greek *σαι*, in *λῆλυσαι*. This suffix *sè* is either directly joined to the root, or by means of the vowel *i*; from the root *D'ù*, to shake, comes *dud'ùs'e*,* which leads to the conjecture, that originally, besides the active form *dud'òt'a*, where the second person is expressed by the syllable *t'a*, there might have existed also *dud'òs'i*, from which *dud'ùs'è* would proceed, in the same way as in the present tense, *d'avasé*, from its corresponding active *d'avasi*.

The following table offers a coherent view of the second preterit, active and middle voice; the application to the Greek and Latin can be made by the reader himself.

Sing.	
Active.	Middle voice.
1 <i>Tutòp a</i>	<i>Tutup è</i>
2 <i>Tutòp i t'a</i>	<i>Tutup i s'è</i>
3 <i>Tutòp a</i>	<i>Tutup é</i>
Dual.	
1 <i>Tutup i va</i>	<i>Tutup i vahè</i>
2 <i>Tutup a t'us</i>	<i>Tutup à t'è</i>
3 <i>Tutup a tus</i>	<i>Tutup à tè</i>
Plural.	
1 <i>Tutup i ma</i>	<i>Tutup i mahè</i>
2 <i>Tutup a</i>	<i>Tutup i d'vè</i>
3 <i>Tutupus</i>	<i>Tutup i rè.</i>

Note. It has been elsewhere observed,† that in the third person plural there is only plurality expressed, by the termination *us*, which in the dual is preceded by a *t*, the proper characteristic of the third person. In the middle voice, this person terminates with *ire*; how this termination is connected with the active voice; whence it is derived, and what part of it properly expresses the third person; (if this person is really expressed) I have not yet been able to discover.

Roots beginning with a consonant and terminating with a single consonant, form this tense, if their radical vowel is a short *a*, by changing it into *è*, with the exception of the first

* *S* in the midst of a word, is always changed into *s'* when preceded by any other vowel than a short or long *a*.

† See p. 21.

and third persons, singular, of the active voice. Thus the roots *Tras*, *Svap*, *Tap*, &c. form *trèsima*, we feared, *svèpima*, we slept, *tèpima*, we burnt. It scarcely requires to be noticed, that this inflection is used also in Latin, to indicate past time; *cepimus*, *fregimus*, *egimus*, &c. being formed exactly like the above Sanskrit preterits. But particularly in the Teutonic dialects, ancient and modern, the change of the radical vowel is most frequently used to indicate past time, and every vowel is capable of undergoing a change for this purpose. In Gothic, for instance, the preterits *band*, *twoh*, *staig*, are derived from the roots *Bind*, to bind, *Twah*, to wash, and *Steig*, to go. Frequently reduplication and a mutation of the radical vowel unite to form the same preterit, as *gaigrotun*,* they wept, from the root *greit*; *lailot*, he let, from *Let*. In Latin the perfect tenses *peperci*, *fefelli*, from *Parc* and *Fall*, unite likewise two inflections, of which each by itself would be sufficient to express past time.

Although reduplication and change of the internal vowel are very frequently employed in Gothic, there exists another method of forming the preterit tense, which, in fact, is extended to the greatest number of verbs. This method consists in suffixing *d* or *t* to the root, either immediately, or by means of *i*; the first and third person singular have no characteristics, and terminate with *a*, like the second preterit in Sanskrit. Thus comes from the root *Sok* the preterit *sok-i-da*, signifying I sought, as well as he sought; the second person is *sok-i-das*. From the root *Og* comes *oh-ta*, *ohtas*, *ohta*, I feared, &c. I do not regard this method of forming the preterit as the original invention of the Teutonic language, nor must *d* or *t* be considered as characteristics of past time, but it originates from a participle, common to the Teutonic dialects with the Sanskrit, Latin, and other languages of the same stock. This participle is formed in Sanskrit by the suffix *ta*, joined either immediately to the root, as in *tyak-ta*, abandoned, *jita*, vanquished, or by the insertion of *i*, as in *lik-i-ta*, written, *kùl-i-ta*, skreened. Its nominative, singular, is in the three genders, *tas*, *tà*, *tam*, corresponding respectively

* Roots beginning with a double consonant, in Gothic, repeat only the first, as in Greek γέγραφα, κέκλικα, &c. and in Sanskrit, *tatràsa*, *bab'ràja*, &c.

with the Latin *tus*, *ta*, *tum*, and the Greek τός, τή, τόν.* This suffix has commonly a passive sense, indicative of the influence of an action already fulfilled, not now fulfilling, upon the subject, as in the above mentioned *jitas*, one who has already been vanquished; *jayamānas* signifies one just in the moment of being vanquished. In neuter verbs the suffix *ta* has an active signification, and often stands instead of a preterit tense, thus *gato vanam*, gone to the forest, may express quite the same as *jagāma vanam*, he went to the forest. It is therefore no wonder that in the Teutonic languages, this passive participle serves to form a preterit tense with an active signification. In Gothic the root *sok* forms the participle *sok-i-ds*, quæsitus, *sok-i-da*, quæsitā, *sok-i-th*, quæsitum. The final *s* of *sokids* is the sign of the nominative, it is rejected in the neuter, which has no characteristic of the nominative and accusative cases.† It must necessarily be rejected also to form a verb, and the termination *a* then takes its place, thus is produced *sokida*, I sought. From the root *Og* comes the participle, *oh-ts*, *oh-ta*, *oh-th*, and thence the preterit *oh-ta*, I feared; the radical *g* being changed into *h*, for the sake of euphony, because of the following *t*.

An evident proof, that there is a connexion between the passive participle and the preterit tense, is, that only such verbs as form the passive participle by the suffix *d*, derive their preterit tense in the manner just described; others, which use the suffix *an*, to form the passive participle, employ either the reduplication or the change of the radical vowel, in order to express past time. For instance, *Nim* forms the participle *numans*, *numana*, *numan*, *prehensus*, *a*, *um*; its preterit is *nam*, I took, or he took; *Hait*, to call, forms the participle *haitans*, and the preterit tense *haihait*.

The method of deriving tenses from participles has obtained extensive use in Bengali; *Karitè*, *Karilè*, *Kariyà* form *kari-tàm*, *karilàm*, *kariyàm*. In Persian the preterit tense is always

* Greek words, formed by this suffix, more generally have the signification of Latin words, formed by the suffix *bilis*; but frequently they agree in signification with the Sanskrit suffix *tas*, and the Latin *tus*, as ποιητός, εὐτρητός, &c.

† The Gothic language prefers *th* at the end of a word, but when by any grammatical inflection it is to be followed by a vowel, it is changed into *d*.

derived from the passive participle: *ber-deh*, borne, agreeing with the Sanskrit *br-tas* or *br-tah*, of the same signification, forms *berdem*, I bore. Also the Greek verb contains a tense which seems to me to be derived from a participle; I mean the aorist passive, *ἐτύφθη*, *ἐδόθη*, together with its derivatives, which I conceive may proceed from the passive participle *τυφθείς*, *δοθείς*, substituting for the termination *εις*, the personal terminations *ην*, *ης*, *η*, &c. If I am right in this conjecture, there is no wonder why *ἐτύφθη*, *ἐδόθη*, with an active termination, have a passive sense, and even never occur in the middle voice, like other tenses of the Greek passive. The passive sense of *ἐτύφθη*, *ἐδόθη* is expressed by the letter *θ* coming from the participle, and therefore the termination may be, without prejudice, that of the active voice. Participles in Greek are generally deduced by grammarians from their corresponding tenses of the indicative, and so *τυφθείς* and *δοθείς* must be so good as to descend from *ἐτύφθη* and *ἐδόθη*; but I cannot conceive why they might not have been previously formed, or why the usual practice of placing the participles at the end of the conjugation, should exert such a great influence upon the origin of grammatical forms. Languages sometimes have unfortunately taken just the reverse course of what the grammarians have thought proper to assign them.

To return to the Indian verb substantive, we have to observe, that roots beginning with a vowel are likewise reduplicated in the second preterit, but the vowel repeated, and the initial of the root, are both subjected to the general rules of euphony, and so it may happen that the augment and reduplication produce the same effects. Thus, for instance, the root *As* makes *ās* by the augment, contracting the prefixed *ā* with the radical *ā* into *ā*, agreeably to a rule of euphony. By the operation of the same rule, *As*, making by reduplication *ā-as*, forms also in the second preterit *ās*; but we are not therefore authorized to say, that the preterit of which we are now speaking, is formed by the temporal augment, if the root begin with a vowel. Besides, it is not in all roots, whose initial is a vowel, that the same effects are produced by the augment and the reduplication. For

instance, the root *Urv* makes with the augment *òrv*, instead of *a-urv*, *a* and *u* being contracted into *ò*, conformably to a rule of euphony; by the reduplication, *ũrv* is changed into *ũrv* (instead of *ũũrv*), because by another rule of euphony, two short vowels of the same power are changed into their corresponding long one. The Sanskrit language is in general much more regular than the Greek, and particularly the change of vowels is entirely founded in nature, there is no arbitrary usage of language. Thus, for instance, it is quite natural that *ā* twice repeated should produce *ā*, two *ũ*'s *ũ*, because two short vowels, being pronounced successively without stopping, the voice naturally produces a long one. It is not so apparently natural why *a* and *i*, and likewise *a* and *u*, when they meet together, are contracted, the former into *è*, the latter into *ò*; but we find that in French *ai* and *au* are pronounced just as are in Sanskrit *è* and *ò*, originating from the union of *a-i* and *a-u*. Therefore this pronunciation of two vowels with one sound must have a natural cause.* The Greek language is much more arbitrary in its contractions; there can scarcely be given any reason, why *o o* produce *ov* and not rather *ω*, why *ε ε* are changed into *ει* and not into *η*. With respect to the augment and reduplication of verbs, beginning with a vowel, the Greek follows more the method of the Sanskrit grammar, which we may call the natural method of contraction. Agreeably to the same principle, which in Sanskrit produces *ās* from *āās* and *ũrv* from *ũũrv*, there is formed in Greek *ἡγειρον* from *ἐεγειρον*, produced by the augment; also, *ἡγερκα* from *ἐεγερκα*, by the reduplication. As *η* very often stands instead of a long *α*, and not seldom answers to the Sanskrit *ā*, therefore it is natural that *ἀνύτω* make by the reduplication *ἡνυκα*, contracted from *ἀανυκα*. In the imperfect the initial of *ἀνύτω* may pass into *ε* (*α* and *ε* being frequently confounded with one another) in order to accommodate itself to the prefixed augment, and thus may the *η* of *ἡνυτον* be resolved. The verb *ὀνομάζω*

* It is clear also why *è* and *ò*, when followed by another vowel, are, in Sanskrit, changed into *ay* and *av*, namely, *è* and *ò*, containing the elements of *ai* and *au*, their final vowels *i* and *u* pass naturally into their corresponding semi-consonants, when another vowel is rapidly pronounced after them; the first element *a* can remain unaltered, without producing any hiatus.

will form by the reduplication *ὀνομακα*, but the two short vowels are changed into their corresponding long one, as in Sanskrit *ũũrv* is contracted into *ũrv*. The Greek alphabet has no particular letters for *ι* and *υ*, short or long, but *ὕβριζω*, which is short, becomes long by the reduplication—*ὕβρικα* instead of *ὕνβρικα*. Now, if *ὀνομάζω*, *ὕβριζω*, *ἰκετεύω*, &c. form also in the imperfect, *ὠνόμαζον*, *ὕβριζον*, *ἰκέτενον*, I should rather be inclined to say, that verbs, beginning with certain vowels, have the reduplication already in the imperfect, than to explain their perfect as originating by the temporal augment.

A few perfect tenses, which really are formed by the augment, namely, *ἔαγα*, *ἔωσμαι*, *ἰώνημαι*, together with *ἔοικα*, *ἔολπα*, *ἔοργα*, do not appear to afford sufficient proof, that no verb beginning with a vowel has the reduplication in the perfect tense, whilst the perfect *ὠνόμακα* has certainly as much claim as the Sanskrit preterit *ũrva* (I injured) to be considered as produced by reduplication.

Mr. Buttmann derives the augment in general, syllabic and temporal, from the reduplication, and, according to his opinion, the *ι* of *ἔτυπτον* is the remaining vowel of the syllable *τέ*, which begins the perfect tense *τέτυφα*, after the rejection of the repeated *τ*. He observes, at p. 159 of the 6th edition of his excellent Grammar, “Also, in the perfect tense, the temporal augment originates from the vowel *ι*. For, as the usual reduplication consists in the repetition of the initial consonant accompanied by an *ι*, therefore, if the verb begin with a vowel, there can only an *ι* be prefixed to it, which *ι*, together with the following vowel, constitutes the temporal augment.” In my humble opinion, the *ι* of the augment has nothing to do with the vowel which articulates the repeated consonant of the perfect; if it had, then the coincidence of the Greek imperfect and aorist with that Sanskrit preterit which is characterized by a prefixed *a*, would be more apparent than real. The Sanskrit augment *a* has no connexion at all with the reduplication, because the redoubled consonant is generally articulated by the vowel of the root; *Tup* forming *tutup* and *Lis*, *lilis*; now, if the first preterit of these roots were *utòpat* *ilès’at*, instead of *atòpat*, *alès’at*, then it might be said that

there exists some connexion between the reduplication and the augment, which then also would be a mere inflection, whilst, in its actual state, I consider it as an affix which had its proper signification.

The following table offers the conjugation of the second preterit of the Sanskrit verb substantive, active and middle voice.

Sing.	
Active.	Middle voice.
1 <i>A's a</i>	<i>A's è</i>
2 <i>A's i t'a</i>	<i>A's i s'è</i>
3 <i>A's a</i>	<i>A's è</i>
Dual.	
1 <i>A's i va</i>	<i>A's i vahè</i>
2 <i>A's a t'us</i>	<i>A's à t'è</i>
3 <i>A's a tus</i>	<i>A's à tè</i>
Plural.	
1 <i>A's i ma</i>	<i>A's i mahè</i>
2 <i>A's a</i>	<i>A's i d'vè</i>
3 <i>A's us</i>	<i>A's i rè</i>

Note. The second person singular, active, if it were formed analogous to *dud'ò-t'a*, *chakar-t'a*, *sis'it-t'a*, &c. by joining the pronominal characteristic immediately to the root, then *às-t'a* would offer a striking coincidence with $\eta\sigma\vartheta a$. It remains, however, questionable, whether the σ of $\eta\sigma\vartheta a$ is radical, or whether it is to be considered as belonging to the personal termination. The latter is rather more probable, because $\sigma\vartheta a$ frequently expresses the second person in Greek, as in $\tau\acute{\iota}\vartheta\eta\sigma\vartheta a$, $\epsilon\acute{\iota}\pi\eta\sigma\vartheta a$, $\epsilon\phi\eta\sigma\vartheta a$, &c. From this reason the coincidence of $\eta\sigma\vartheta a$ with the Sanskrit *àsita* is not really so great as it may appear. I am, however, of opinion, that $\tau\acute{\iota}\vartheta\eta\sigma\vartheta a$, $\epsilon\acute{\iota}\pi\eta\sigma\vartheta a$, &c. do not proceed from $\tau\acute{\iota}\vartheta\eta\varsigma$, $\epsilon\acute{\iota}\pi\eta\varsigma$, by adding to the σ , characteristic of the second person, the syllable ϑa , but I believe that the whole termination $\sigma\vartheta a$ is intimately connected with *t'a*, which frequently indicates the second person singular in Sanskrit, particularly in the middle form, being in the active confined solely to the second preterit. The Greek language is very fond of prefixing σ to ϑ , as is manifestly evinced by the passive participle formed by

the suffix *Δεις*; but prefixing *σ* to the *Δ*, there is formed *ὀϊσΔεις*, *μνησΔεις*, *χρησΔεις*, &c. Therefore it is no wonder if the Greek has formed *σθα* out of the Sanskrit termination *t'a*.

The Latin root *Es* is not separately in use in the perfect tense, where the root *Fu* assumes its place. But one might suspect, from the general analogy, that *si*, *sisti*, *sit*, would be the perfect of *Sum*, or *esi*, *esisti*, *esit*, that of the obsolete *Esum*.

Besides the tenses already explained to the reader, and their corresponding ones of the middle voice, the Sanskrit root *As* has not preserved any other forms in a disconnected state, but, if we turn our attention to the attributive verbs, we might expect, agreeably to the principles before developed, that we should discover it here and there to be incorporated in them. The Greek root *ΕΣ* has still a future tense used disconnectedly, which however, in my opinion, is only a present tense of the middle voice, employed by the usage of language with a future sense. Were we to derive a verb in *ω* from the root *ΕΣ*, it would be *ἔσω*, *ἔσεις*, *ἔσει*, as the root *ΛΕΓ* produces *λέγω*, *λέγεις*, *λέγει*; the active *ἔσω* does not occur, and has perhaps never been in use, but its corresponding middle form, *ἔσομαι*, *ἔσῃ*, *ἔσεται* is used with a future sense. Instead of *ἔσεται*, we find more generally *ἔσται*, which certainly is nothing else than the middle voice of *ἐστί* (he is) produced by the change of *ι* into *αι*, as *δίδω-ται* is derived from the Doric, and original active *δίδω-τι*. The Greek verb substantive is the only verb in *μι*, which has preserved *τι* in the third person singular, through all dialects, whilst in other verbs this genuine Sanskrit termination distinguishes the Doric dialect, the faithful preserver of the original forms. In the second person also, the Sanskrit termination *si* is merely confined to the verb substantive (*ἴσ-σι*); even the Doric dialect has rejected the *ι* in other verbs. There is another coincidence with the Sanskrit, almost exclusively confined to the root *ΕΣ*; I mean the direct junction of the pronominal characteristics to a root terminating with a consonant. The connection of the pronominal terminations with the verbal root, without the interposition of any servile vowel or syllable,

is the characteristic of the second conjugation in Sanskrit; a conjugation indeed not containing any great number of verbs. The root *Pà* which we have chosen as paradigm, belongs to it, and likewise the root of the verb substantive, *As*. If like the first, this conjugation inserted an *a*, this root would form the present *asàmi*, *asasi*, *asati*; the Greek follows this method in the middle voice, or, not to be misunderstood, in the future tense; there we have *ἔσ-ο-μαι*, *ἔσ-ὀ-μεθα*, &c. instead of *ἔσ-μαι*, *ἔσ-μεθα*.

We must not forget the Homeric form *ἴδμεν*, which stands quite isolated in the Greek, and requires the elucidation of the Sanskrit grammar. In proof of this we observe, that the Indian root *Vid*, signifying, to *wit*, to know, belongs to the second conjugation, and in conformity with its rules, forms in the first person plural, of the present tense, *vidmas*, we know; analogous to this, Homer formed *ἴδμεν*, which he perhaps pronounced with the digamma *Ψιδμεν*, or, agreeably to the Doric dialect *Ψιδμες*. For, the Homeric root *ΨΙΔ* answers to the Sanskrit and Latin root *Vid*; *ΨΙΔ* was in later times changed into *ΕΙΔ*. The second person of *vidmas* is *vitt'a* (instead of *vidt'a*), *d* before *t* being always changed into *t*, by a rule of euphony. Also *ἴδτε* or *Ψιδτε* would have been intolerable to the ear of a Greek, therefore the final radical was changed into *σ* (*ἴστε*). The change of *δ* into *σ* is very common in Greek, and always happens in the perfect, passive, with respect to roots terminating with *δ*, because *σ* is preferred to *δ* before *μ*, although the junction of *δμ* is not at all inconsistent with euphony, and we find in Hesiod the participle *προπεφιδμένος*, in Pindar *κεκαδμένος*, which were afterwards changed into *προπεφρασμένος*, *κεκασμένος*. It is strange that the Sanskrit forms, from the root *Vid*, another present tense, assuming the terminations of that preterit, which is formed by reduplication; but it is still more strange that the Greek root *ιδ*, or *Ψιδ*, follows, even in this irregularity, the example of the Sanskrit. Changing the radical vowel *i* into *è*; a change which is frequent in the Sanskrit conjugation, but does never indicate any modification of the sense; the Sanskrit root *Vid* derives *vèda*, *vett'a*, *veda*, I know, thou knowest, he knows; herewith agrees the Greek *οἶδα*, *οἶσθα*, *οἶδε*. It is to

be observed, that the Sanskrit *d* is changed into *t* before *t'a*, indicating the second person; the Greek δ has disappeared entirely before $\sigma\theta a$, unless it be supposed that θa alone expresses the second person, and that the preceding σ is the substitute of the radical δ . This, however, is not probable, because there is no other instance of θa , instead of $\sigma\theta a$, indicating the second person, and the same δ is rejected also in the future tense $\epsilon\acute{\iota}\sigma\sigma\omicron\mu\alpha\iota$. The German verb *ich weiss*, coming from the Gothic root *vit* (*vitān*) to know, has likewise in the present this coincidence with the preterit, that the first and third persons are alike; *ich weiss, du weisst, er weiss*.

To return to the verb substantive we must observe, that the Latin *ero* stands instead of *eso*, the radical *s* of the root *Es* being changed into *r*, as in the imperfect *eram*. *Eso* would agree with the Greek $\epsilon\acute{\sigma}\omega$, which does not occur, but is the active of the middle form $\epsilon\acute{\sigma}\omicron\mu\alpha\iota$. Instead of *ero* we find in the oldest writers also *esco*, where the radical *s* is connected with *c*, which, like the Greek κ , is frequently found placed after *s*. In Greek we have from the root $\epsilon\sigma$ the imperfect $\epsilon\sigma\kappa\omicron\nu$, which, often occurs as well separately as in connection with attributive verbs, losing in the latter case its initial ϵ ;— $\pi\acute{\epsilon}\mu\pi\epsilon\sigma\kappa\omicron\nu$, $\beta\alpha\acute{\iota}\nu\epsilon\sigma\kappa\omicron\nu$, $\delta\acute{\alpha}\mu\nu\alpha\sigma\kappa\epsilon$, &c.

Of the future Tense of attributive Verbs.—The future of attributive verbs, in Greek, I consider as being nothing more than the conjunction of an attributive root with the present tense of the substantive verb $\epsilon\sigma$, provided with ω for the termination, to which the usage of language has given a future signification. Mr. Matthiæ observes, with reason, that $\epsilon\acute{\sigma}\omega$ (in the middle voice $\epsilon\acute{\sigma}\omicron\mu\alpha\iota$) is properly the characteristic of a future tense. $\epsilon\acute{\sigma}\omega$ or $\epsilon\acute{\sigma}\omicron\mu\alpha\acute{\iota}$, in connection with the roots $\omicron\lambda$, $\alpha\pi$, $\mu\alpha\chi$, $\alpha\iota\delta$, produces $\omicron\lambda\epsilon\acute{\sigma}\omega$, $\alpha\pi\epsilon\acute{\sigma}\omega$, $\mu\alpha\chi\epsilon\acute{\sigma}\omicron\mu\alpha\iota$, $\alpha\iota\delta\epsilon\acute{\sigma}\omicron\mu\alpha\iota$. Whilst $\mu\acute{\alpha}\chi\omicron\mu\alpha\iota$ produces the future $\mu\alpha\chi\epsilon\acute{\sigma}\omicron\mu\alpha\iota$, $\mu\alpha\chi\acute{\epsilon}\omicron\mu\alpha\iota$ makes $\mu\alpha\chi\acute{\eta}\omicron\mu\alpha\iota$, because the ϵ joined to the root $\mu\alpha\chi$, and the initial of the substantive verb, $\epsilon\acute{\sigma}\omicron\mu\alpha\iota$, are confounded together into η , and thus $\mu\alpha\chi\acute{\eta}\omicron\mu\alpha\iota$ stands instead of $\mu\alpha\chi\epsilon\acute{\sigma}\omicron\mu\alpha\iota$. Future tenses, which like $\omicron\pi\epsilon\acute{\sigma}\omega$, $\omicron\lambda\epsilon\acute{\sigma}\omega$, &c. seem to have preserved the original shape, are not very frequent; usually, as Mr. Matthiæ observes, either the ϵ

or σ of $\acute{\epsilon}\sigma\omega$ and $\acute{\epsilon}\sigma\omicron\mu\alpha\iota$ are rejected, and this rejection respectively characterizes the first or second form of the future tense. Whether the first or second rejection is to take place, particularly depends upon the final radical letter of a verb; some verbs have both forms. $\omicron\lambda\acute{\epsilon}\sigma\omega$, which is used by Homer, is found in the same author abbreviated into $\omicron\lambda\acute{\epsilon}\omega$, in the middle voice $\omicron\lambda\acute{\epsilon}\omicron\mu\alpha\iota$, and the third person $\omicron\lambda\acute{\epsilon}\tau\alpha\iota$ was by him contracted into $\omicron\lambda\acute{\epsilon}\iota\tau\alpha\iota$. $\alpha\rho\acute{\epsilon}\sigma\omega$ was abbreviated into $\alpha\rho\sigma\omega$, and $\alpha\rho\acute{\epsilon}\omega$, and the latter is contracted into $\alpha\rho\tilde{\omega}$. The roots KYP , AY , produce $\kappa\acute{\upsilon}\rho\sigma\omega$, $\lambda\acute{\upsilon}\sigma\omega$; and BAL , STEL , form $\beta\alpha\lambda\acute{\epsilon}\omega$, $\sigma\tau\epsilon\lambda\acute{\epsilon}\omega$, contracted into $\beta\alpha\lambda\tilde{\omega}$, $\sigma\tau\epsilon\lambda\tilde{\omega}$. Now, if Mr. Matthiæ is right in stating that $\acute{\epsilon}\sigma\omega$ is the proper characteristic of the future tense, then we may believe that the verb substantive, either unaltered or abbreviated, makes part of every future tense. Agreeably to this principle, even $\acute{\epsilon}\sigma\omicron\tilde{\mu}\alpha\iota$ contracted from $\acute{\epsilon}\sigma\acute{\epsilon}\omicron\mu\alpha\iota$, would be considered as the abbreviation of $\acute{\epsilon}\sigma\acute{\epsilon}\sigma\omicron\mu\alpha\iota$. It may appear strange, that the verb substantive should enter into conjunction with itself, and $\acute{\epsilon}\sigma\omicron\tilde{\mu}\alpha\iota$, at first sight, might appear a strong argument against my explanation of the future tense; but let us observe that, when it had become general, in the languages derived from the Latin, to form the future tense by joining the present tense of the auxiliary verb *avoir*, to the infinitive of any attributive verb, then even the verb *avoir*, following the current of analogy, formed the future tense by compounding its own present with the infinitive. The present of *avoir*, when it is suffixed in this manner to infinitives, undergoes such abbreviations, in the plural particularly, that it would scarcely be possible to recognize it, if in the *Langue Romane*, or the language of the *Troubadours*, it had not sometimes been placed separately from the infinitive. A French author remarks upon this subject, “Souvent ils ont (LES PROVENÇAUX), entre les deux verbes qui forment leur futur, inséré un article, un pronom ou autre particule, et quelquefois plusieurs, comme s’ils eussent prévu qu’ on pourroit un jour confondre le verbe principal avec le verbe auxiliaire qui compose ces temps. J’en rapporterai ici plusieurs exemples que j’ai recueillis en lisant les ouvrages de nos anciens Provençaux. *Compatar vos ai*, je vous compterai; *dar vos n’ai*, je vous en

donnerai; *dir vos ai*, je vous dirai; *dir vos em*, nous vous dirons, gitar m'etz, vous me jeterez."*

The *Provençal* infinitive *aver* is contracted into *aur*, when it enters into conjunction with the present tense *ai*†, to form the future; *aur ai* would properly signify, I have to have; and so it might be said that *ἔσομαι* originally means, I am to be. The difference, however, between the Greek and *Provençal* future is, that 'ΕΣ, being a root, can never be employed in speech without entering into connection with some particle or other.

In Sanskrit the future tense is formed by connecting with the unaltered root the word *Syàmi*, *Syasi*, &c. the conjugation of which will be seen in the following table.

Sing.	Dual.	Plural.
1 <i>Syà mi</i>	<i>Syà vas</i>	<i>Syà mas</i>
2 <i>Sya si</i>	<i>Sya t'as</i>	<i>Sya t'a</i>
3 <i>Sya ti</i>	<i>Sya tas</i>	<i>Sya nti</i>

If the reader will compare this with *Syàm*, *Syàs*, *Syàt*, &c. the potential mood of the root *As*,‡ he will, I believe, be led to the opinion that *Syàmi* likewise is derived from *As*. The only difference indeed is, that *Syàmi* has the termination of the present tense §, placing, for instance, in the singular and third person plural, an *i* after the pronominal consonants. But *Syàmi* has, in common with *Syàm*, the essential characteristic of the potential mood, namely, the *ì* inserted between the root and the personal terminations, which *ì*, as it has been observed, signifies in Sanskrit, to wish. *Syàmi* stands for *Sìami*, *ì* before *à* being changed into *y*, in conformity to a rule of euphony. It may be supposed, that the root *As*

* See Mém. de l'Acad. des Inscriptions et belles-lettres, tom. xxiv. *Remarques sur la langue Française des douzième et treizième siècles, comparée avec les langues provençale, italienne et espagnole, des mêmes siècles, par M. de la Curne de Sainte-Palaye*, p. 684. Upon this subject may also be consulted Mr. Raynouard's *Grammaire de la langue des Troubadours* and Mr. A. W. Schlegel's *Observations sur la langue et la littérature provençales*.

† The plural *avem*, we have, loses its radical element *av*, and preserves only the termination *em*, when it enters into composition with an infinitive. Thus *amar em* (instead of *amar avem*) will appear more mutilated than ὁλ έω for ὁλ έσω.

‡ See p. 20.

§ See p. 17.

would have had a future tense originally, and it seems to me credible that *Syàmi* is this future tense, being lost by lapse of time in disconnected use, and being found at present extant only compounded with attributive roots. It is not unfrequently the case in other languages, that words become obsolete in a disconnected state, and are preserved only as elements of compounds. To give an example, the Latin word *ficus*, doing, making, from the root *Fac*,* is never used separate; but in composition with *male*, *bene*, and other words, it forms *maleficus*, *beneficus*, *honorificus*,† &c. One would think that, before these compounds could have originated, their single members must have been in existence. But suppose that *ficus* was never in separate use, still it must be considered in *maleficus* as being itself a word. Had the verb *facio*, and all nouns of the same root become obsolete, then the words *ficus*, and *ficium* (the latter forming *beneficium*, *sacrificium*, *officium*) would probably have been called by grammarians inflections or terminations; but what are called inflections are mostly distinct words, whose origin and primitive meaning is obscure, or not sought for.

There is the more reason to consider *Syàmi* as the future of the verb substantive, because the future and potential mood express synonymous modifications of sense. Neither in the one nor in the other does the action or quality really exist, but having its being only in the mind of the speaker, is thought possible, is concluded from reasons, is desired or conditionally predicted. It is therefore not to be wondered at, that in grammar both tenses bear the same characteristic, in Sanskrit an *i*, expressing desire. The English auxiliary verb *to will*, which, like ᾤλω in modern Greek, is employed to indicate future time,‡ does not much differ in signification from the German auxiliary

* The vowel *a* is very frequently changed into *i* in Latin.

† The *i* between *honor* and *ficus*, I believe, is here, as it is very commonly, only the mean of connection between the two members of the compound, and not the dative termination. *Honor*, although it may be the nominative, is here the crude form, from which all cases, *honor-is*, *honor-em*, &c. proceed.

‡ A. W. Schlegel observes very properly:—"Ce que nous devons ou voulons faire est toujours dans l'avenir; c'est pourquoi, dans plusieurs langues, les verbes *devoir* et *vouloir*, comme auxiliaires, indiquent le futur." See *Observations sur la Langue et la Littérature Provençales*.

verb *moegen*, signifying to wish, which is employed as *may* (from the Anglo-Saxon *magan*) in English, to express the potential mood. But something more conclusive than these theoretic reasonings can be practically shewn by a language having the future and potential mood in reality the same; this language is the Gothic. The tense, which Hickes mentions as future, is exactly the same with the potential mood; later grammarians deny the Gothic language to have a future tense, and it will therefore be proper to give a few instances, where Ulphila translates the Greek future by the potential mood:

Mark ix. 19. Ὡς γενεὰ ἄπιστος, ἕως πότε πρὸς ὑμᾶς ἔσομαι; ἕως πότε ἀνέξομαι ὑμῶν;—*O kuni unglaubyando, und hva at izvis SIYAU? und hva THULAU izvis?*

Mark ix. 35. Ἔσται πάντων ἑσχατος, καὶ πάντων διάκονος.—*SIYAI allaize aftumist yah allaim andbahts.*

Mark x. 7. Ἐνεκεν τούτου καταλείψει ἄνθρωπος τὸν πατέρα αὐτῆ καὶ τὴν μητέρα.—*Inuh this BILAIIDAI manna attim seinamma yah aithein.* v. 8. Καὶ ἔσονται οἱ δύο εἰς σὰρκα μίαν.—*SIYAINA tho tva du leika samin.*

In Sanskrit *Syàmi* is either joined immediately to the verbal root, or by means of an inserted *i*, as for instance, *Dà-syàmi*, I shall give, (δῶσω); *Tan-i-s'yàmi*, I shall extend. In Gothic the preterit of the potential mood exhibits a similar connexion, of an attributive root with an auxiliary verb, joined either immediately, or by the mean of an inserted *i*. From the root *Og* is derived *oh-tedi*, that I might fear; from *Sok* comes *sok-i-dedi*, that I might seek. In the corresponding tense of the indicative this combination takes place only in the plural number—*Sok-i-dedum*, we sought, or rather, we did seek. The Gothic *dedi* is so nearly connected with the English *did* that it scarcely needs any further proof to shew that *sokidedi* is a compound term; besides, we find in Ulphila the word *missadeds*, a criminal deed, a compound word, the second member of which seems originally to have been a passive participle, like the Latin *factum*; the final *s* characterizes the nominative, and ought to be rejected to form *dedum*, we did, *dedeima*, we might have done. The verb *tauya*, I do, seems to be a slight variation from the radical element of the substantive *deds*; but this *tauya*, in the plural

of the preterit indicative, and in both numbers of the potential mood, enters into conjunction with itself, forming *tav-i-dedum*, we did do, *tav-i-dedi*,* I might have done. Here I must again remind the reader of the *Provençal* future tense *aur ai*, I shall have, or properly, I have to have.

There is another future tense in Sanskrit which is worthy of notice, because the verb substantive is a constituent part of it likewise, if I am not deceived by its analysis. The third person of the three numbers appears to be nothing else than the nominative masculine, of a participle having a future sense, and formed by the suffix *tr*, as, for instance, *dàtr* from the root *Dà*. In the nominative case the *r* of the suffix irregularly disappears, and an *à* is placed after the *t*, thus *dàtà* signifies *daturus*, the accusative is *dàtâr am*, *daturum*, the nominative of the dual and plural number is *dàtâr au* and *dàtâr as* (*datur i*, *dator es*.) This nominative, without any alteration or addition, stands for the third person of the future tense above mentioned, according to the respective numbers; *dàtà* (*daturus*) may express *daturus est*, and *dàtâras*, (*daturi*) may signify also *daturi sunt*. In the other persons the nominative singular of the participle enters into conjunction with the present of the verb substantive,—*dàtàsi*,† *daturus es*,—as will be seen in the following table.

Sing.	Dual.	Plural.
1 <i>Dàtàsmi</i>	<i>Dàtàsvas</i>	<i>Dàtàsmas</i>
2 <i>Dàtàsi</i>	<i>Dàtàst'as</i>	<i>Dàtàst'a</i>
3 <i>Dàtà</i>	<i>Dàtârau</i>	<i>Datâras.</i>

The French author,‡ above quoted, observes, with respect to the future tense of the *Provençal* language, that the Troubadours often placed an article, a pronoun, or other particle, and sometimes several, between the two verbs forming the future tense, as if they had foreseen that at some future period the principal and the auxiliary verb, which compose this tense, might be confounded together. In order to shew that the ancient Hindu poets were not less endued with foresight,

* The root *Tau* is changed into *Tav* before a vowel, in conformity with a Sanskrit rule of euphony, requiring the change of *u* into *v* before any vowel.

† See the present tense of the root *As*, p. 17.

‡ M de Sainte-Palaye.

I shall extract from the *Ràmâyana* and *Mahàbhàrata* a few examples of the separation of the participle from the verb substantive by words interposed.

Kat'am àtmasutàn hitvā trātā parasutàn asi

Quid, propios-filios deserendo servaturus aliûs filios es?

Kin karòmi vasò brùhi ràjni karttā tad asmi tè

Quid faciam? voluntatem dic, regina; facturûs istud sum tibi.

In a similar way as we found the third person of this future tense expressed by the nominative of a future participle, so, I believe, the second person, plural, of all tenses of the Latin passive voice, is expressed by the nominative, plural, masculine, of a participle, formed in Sanskrit by the suffix *mānas*, *mānā*, *mānam*, to which corresponds the Greek suffix *μενος*, *μενη*, *μενον*, and we have reason to believe also that it existed in ancient Latin under the form of *minus*, *mina*, *minum*. *Ama mini* would be the nominative case, plural, masculine, of such a participle, which was in use in the Etruscan language, where we find *dikamne*, saying, and *pelmener*, the dative plural, answering, according to Lanzi, to the Greek *πελόμενοις*, from the verb *πέλομαι*. In the Etruscan dialect *o* is equivalent to the Latin termination *us*, and *or* to the nominative plural in *i*; thus *screhto*, *screhitor*, *subato*, *subator*, are found in place of the Latin, *scriptus*, *scripti*, *subactus*, *subacti*. The second person, plural, of the imperative mood, *amaminor*, is an ancient plural termination, like *screhitor*, *subator*; in Cato we find *præfamino*, and in Festus *famino*, as the second person singular, of the imperative, and these obsolete forms agree with *screhto*, *subato*. The internal vowel of the suffix *minus* having been rejected, we find, *alumnus*, *vertumnus*, properly participles, used as substantives. As the Greek participle, formed by *μενος*, may have an active or passive signification, according as it is used in the middle or the passive voice; so *alumnus*, formed by the same suffix, expresses with an active sense, *qui alit*, and with a passive sense, *qui alitur*. *Vertumnus* agrees with the Sanskrit participle *varṭamānas*,* signifying *turning*, from the root, *vṛt*, to turn.

* The Sanskrit suffix *mānas* forms participles of the middle voice, but when preceded by the syllable *ya*, they receive a passive signification; *vṛtyamānas* expresses *qui vertitur*.

After rejecting the termination *us*, the suffix *min-us* forms substantives of the third declension, changing in the nominative singular the internal vowel *i* into *e*, as similar nouns in Greek, formed by $\mu\epsilon\nu$, are changed in the nominative case into $\mu\eta\nu$, by lengthening the vowel, where the ν terminates the word.* Those substantives, of course, may have an active or passive sense, conformably as the usage of language determines, but the latter is more common. *Discrimen*, *discrimin-is*, quod discernit; *stramen*, quod struitur; *legumen*, quod legitur; *prefamen*, preface, what is said at the commencement, &c. I cannot help mentioning the word *carmen*, a poem, properly signifying, quod factum vel creatum est, and so far answering to the Greek $\pi\omicron\iota\eta\mu\alpha$ from $\pi\omicron\iota\acute{\epsilon}\omega$. In Sanskrit *karman* signifies deed (from the root *kr*, to make) a neuter, rejecting in the nominative case its final *n*, forming *karma*, the genitive is *karman-as*, answering to *carmin-is*.

Of the third Preterit.—Besides the two preterits whose conjugation has already been explained, there is another in the Sanskrit language very little differing, where it is simple, from the first, formed by the augment. The only difference, indeed, is, that the peculiarities of the different conjugations, which are preserved in the first, disappear in the third preterit. The third conjugation, for instance, distinguishes itself from the rest by repeating the initial consonant of the root in the first four tenses; thus *Dà* produces *dadà mi*, I give, to which answers the Greek $\delta\acute{\iota}\delta\omega\ \mu\iota$. The first preterit is *adadà m*, I gave, identified by the Greek $\epsilon\delta\acute{\iota}\delta\omega\nu$; the third preterit, losing the repeated syllable, is *adàm*. It is nothing wonderful that the Greek, which has hitherto been found so constantly to reflect, if I may so say, the Sanskrit, follows this example, opposing $\epsilon\delta\omega\nu$ to *adàm*. The first conjugation, in Sanskrit, joins an *a* to the root; thus *B'ù* makes in the first preterit *ab'avat*, he was, *ab'avas*, thou wast, &c. changing the radical *ù* into *av*, because of the following *a*; the third preterit, rejecting this

* It may here be observed, that the above suffix *tr* forms also substantives, corresponding in sense to Latin nouns in *tor*; thus *dàtaram* may signify datorem, as well as daturum; the former sense being more common. It is evident that the Latin suffixes *tor* and *urus*, are of one origin, differing only in declension.

a, joins the personal characteristics immediately to the root; thus is produced *ab'ût*, *ab'ûs*, &c. One would think that if the Greek root $\Lambda\Upsilon$ could produce the second form of the aorist, it should be $\epsilon\lambda\upsilon\nu$, $\epsilon\lambda\upsilon\varsigma$, &c. because the imperfect interposes an *o*, or some other short vowel, between the root and the personal characteristics, making $\epsilon\lambda\upsilon\omicron\nu$, $\epsilon\lambda\upsilon\epsilon\varsigma$, &c. agreeing with the Sanskrit *ab'av a m*, *ab'ava s*. The root $\Upsilon\Pi$ would, in the second aorist, reject the τ , which in several tenses is added to the root, and thus $\epsilon\tau\upsilon\pi\omicron\nu$ would be distinguished from $\epsilon\tau\upsilon\pi\tau\omicron\nu$. But many verbs never use the second, or simple, aorist, and $\Lambda\Upsilon$ and $\Upsilon\Pi$ produce $\epsilon\lambda\upsilon\sigma\alpha$, $\epsilon\tau\upsilon\pi\sigma\alpha$, by the operation of composition, which it will be well to explain first, by examples from the Sanskrit language.

I shall therefore observe, that those roots which do not form the third preterit in the manner just described, enter into combination with *àsam*, the first preterit of the verb substantive, placing, however, the augment before the attributive verb, and, not to express past time twice in the same word, *àsam*, contracted from *ăăsam*, would become *ăsam*, by losing its augment. Now, as it has been observed throughout the whole conjugation of the verb substantive, that its radical *a* is often in an irregular way rejected, therefore it will appear less surprising that *sam*, *sîs*, *sît*, in a compound structure stands for *ăsam*, *ăsîs*, *ăsît*, &c. Let us observe also, that *astè*, *asè*, &c. the middle voice of *asti*, *asi*, when it enters into composition with the prepositions *viati* (*vi-ati*) loses its initial *a*, so that the root *As* seems to have a propensity to reject its initial letter, when entering into composition with foreign elements.

The root *S'ru*,* to hear, by connexion with the substantive verb, forms *as'raus'am*, I heard; for the radical vowel in this tense is increased, *i* and *u* being respectively changed either into $\grave{e}$ and $\grave{o}$, or into *ai* and *au*; a radical *a* always becomes $\grave{a}$. Because of the preceding *au*, the *s* of the substantive verb receives an aspiration, by a rule of euphony already several times mentioned. The conjugation of *sam*, *sîs*, *sît*, in conjunction

* This root, beginning with that *s'*, which is frequently changed into *k*, (see p. 6), may be compared with the Greek $\kappa\lambda\upsilon$ ($\kappa\lambda\upsilon\omega$) of the same signification.

with *as'rau*, may be compared with the first preterit of the root *As*, as it is exhibited in page 32; whereby it will become evident that it differs from this only by the loss of the initial vowel.

Sing.	Dual.	Plural.
1 <i>As'rau s'am</i>	<i>As'rau s'va</i>	<i>As'rau s'ma</i>
2 <i>As'rau s'is</i>	<i>As'rau s'tām</i>	<i>As'rau s'ta</i>
3 <i>As'rau s'it</i>	<i>As'rau s'tām</i>	<i>As'rau s'us.</i>

Note. The third person plural, terminating with *us*, agrees more with the second preterit *āsus*, they were, than with the first, *āsan*. But the root *Lih*, to resemble, and those of the same class with it, in the conjugation of this tense, have *san*, not *sus*, in the third person plural; *alèk s'an*,* they resembled. The first person singular, *as'rau s'am*, I heard, is analagous with *ἐλὺ σα*, of which the middle voice is *ἐλὺ σαμ ην*, preserving the characteristic of the first person, which in the active has been lost. The root *Tap*, to shine, forms *atàp sam*,† analogous to the Greek *ἐτύπ σα*, *ἐκρυπ σα* (*ἐτύπ σαμ ην*, *ἐκρυπ σαμ ην*). The second and third person, *atàp sis*, *atàp sīt*, are more in conformity with the Latin *sep sisti*, *sep sit*, *scrip sisti*, *scrip sit*, from the roots *Sep* and *Scrib*, in union, I believe, with the verb substantive; the augment not being used in Latin. The Sanskrit root *Vah* of the same signification as the Latin *Veh* (*veho*), forms *avaks'it*, he carried; if you retrench the augment, you will recognize a preterit certainly very similar to the Latin *vec-sit* (*vexit*.) Roots terminating with a consonant either reject the verb substantive in those personal terminations beginning with *t*, or they insert a vowel between the *s* and *t*, because *atàp sta* and *alèk s'ta*, as second persons plural, would sound too harsh to ears accustomed to a refined euphony. Thus instead of *atàp sta*, you shone, as would be expected from the first and third persons, *atàp sma*, *atàp sus*, we find *atàpta*; for *alèk s'ta*, we find *alék s'ata*, agreeing with *ἐτυπ σατε*. We have elsewhere observed, that the first person *āsam*, I was, leads us to expect in the second and third per-

* If *h* and *s* meet together, the first letter is changed into *k*, the latter into *s'*, conformably to a rule of euphony. *Lèk* (for *lik*) produced in this way from *lih*, may be compared with the English word *like*.

† Here the *s* of the auxiliary verb preserves its original shape, because the conjunction of *p* and *s* is perfectly according to euphony.

sons, *àsas*, *àsat*, which would also be conformable with the first preterit of attributive verbs, in which *as* and *at* correspond by exact analogy with the first person *am*. In compound structure the verb substantive often forms *sas* and *sat* in the second and third persons, as, for instance, in the preterit of the root *Lih*, and others following the same analogy. The second and third persons of *alèk s'am* are *alèk s'as*, *alèk s'at*, in conformity with ἔτυπ σας, ἔτυπ σατ-ο. In order to give a coherent view of the Sanskrit third preterit, simple or compound, according as it answers either to the Greek second or first aorist, I choose *adàm* and *alèk s'am* for comparison with the Greek ἔδων and ἔτυπ σα.

Sing.

Sans.	Greek.
1 <i>Adà m</i>	ἔδω ν
2 <i>Adà s</i>	ἔδω ς
3 <i>Adà t</i>	ἔδω
Middle voice <i>Adàt-a.</i>	ἔδοτ-ο.

Dual.

1 <i>Adà va</i>	—
2 <i>Adà tām</i>	ἔδο τον
3 <i>Adà tām</i>	ἔδό την.

Plur.

1 <i>Adà ma</i>	ἔδο μιν
2 <i>Adà ta</i>	ἔδο τε
3 <i>Adus</i>	ἔδο σαν.*

Sing.

1 <i>Alèk s'a m</i>	ἔτυπ σα (ἐτύπ σαμ ην)
2 <i>Alèk s'a s</i>	ἔτυπ σα ς
3 <i>Alèk s'a t</i>	ἔτυπ σε

Middle voice <i>Alèk s'a t a</i>	ἐτύπ σα τ ο.
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Dual.

1 <i>Alèk s'à va</i>	—
2 <i>Alèk s'a tām</i>	ἔτυπ σα τον
3 <i>Alek s'a tām</i>	ἔτυπ σά την.

Plur.

1 <i>Alèk s'à ma</i>	ἔτυπ σα μιν
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* Here I consider the verb substantive to be joined to the root, as I shall elsewhere endeavour to prove.

2	<i>Alèk s'a ta</i>	ἔτυπ σα τε
3	<i>Alèk s'a n</i>	ἔτυπ σα ν
	Middle voice <i>Alèk s'a nt a</i>	ἔτύπ σα ντ ο.

The preterit of *As* is sometimes joined to an attributive root, not immediately, but by the mean of an inserted *i*, as *atòp i s'am*, *atòp i s'ma*, I killed, we killed, &c. Sometimes the suffixed *S* has the reduplication throughout all persons, the third and second excepted; for instance, *ayàsìt*, he went, *ayàsìs*, thou wentest, *ayàsìs'am*, I went, *ayàsìs'ma*, we went, &c.; this is the most evident proof that *sis'am* and *sis'va*, as well as *sìs* and *sìt*, are to be considered as particular words. Now, if this cannot be denied, it naturally follows, that also the Greek and Latin forms, ἔτυπ σα, *vec sīt* (*vexit*), are compounds, because their similarity with *atòp sam* and *avàk s'it* is too striking to be considered as merely accidental.* But we do not even need to have recourse to the Sanskrit to prove the compound structure of the Greek and Latin preterits. 'ΕΣ is in Greek, and *Es* in Latin, the root of the verb substantive. The former produces, by means of the augment, ἦσαν, which in the first person has been abbreviated into ἦν, by the rejection of the syllable σα.† Without the augment we find ἔσαν for ἦσαν in the third person plural, and in the first person singular ἔα, where the radical Σ and the personal characteristic are rejected. From ἔα proceeds the second person ἔας, in the plural ἔατε, instead of ἔσας, ἔσατε, which, losing the initial vowel, make part of the first aorist. It has been observed in its proper place, that the perfect of the Latin root *Es* would be *esi*, *esisti*, by analogy with the obsolete present *esum*, or *si*, *sisti*, conformably to the present *sum*. This we may conclude from the analogy of the Latin language, as *legi* is the perfect of *lego*. There is nothing incongruous with the usual fate of languages that *si* should have become obsolete as a separate word, and have been preserved in compound structure like the Sanskrit *Syàmi*, apparently the future tense of the root *As*.

* Here it may be observed, that the roots *Dru* and *Sru* form this tense by means of the reduplication, before which they place the augment, without joining the verb substantive. Thus we recognize in *adudruvam*, *asusruvam*, both signifying *I ran*, the form of the Greek pluperfect.

† See p. 32.

In Sanskrit there are many verbs that never use the verb substantive in the second and third persons singular of the third preterit, but suffix it in all other persons, for instance, *avàdīt*, he spoke, *avàdīs*, thou spokest, *avàd i s'am*, I spoke, *avàd i s'ma*, we spoke, &c. In Latin, all the perfect tenses join the verb substantive, in the third person plural, although they are simple in the other persons; and those which contain it already in the preceding persons, use it redoubled in the third person, plural, as *scripserunt*, for *scripsesunt*, similar to the Sanskrit *ayàsis'am*, I went. The Latin root *Fu*, which supplies the want of a separate perfect to *Es*, is simple as far as the third person plural, where *fu erunt* stands undoubtedly for *fu esunt*. In the Etruscan language we find also in the singular, *fust*, he was, from *fu est*. It scarcely need be mentioned that *fu eram* and *fu ero* are the combination of the imperfect and future of *Es*, with the unaltered *Fu*. This root contains, properly, nothing to indicate past time, but the usage of language, having supplied the want of an adequate inflection, *fui* received the sense of a perfect, and *fu eram*, which would be nothing more than an imperfect, that of a pluperfect, and after the same manner *fu ero* signifies, I shall have been, instead of, I shall be.

As there is so strong a tendency in Latin to change *s* into *r*, one might feel surprised that *essem*, whose most ancient form is *esem*, does not become *erem* in compound structure with *fu*, so that we should have *fu erem* or *fu irem* instead of *fu issem*; but the present *esim*, which would answer to the ancient indicative *esum*, but loses its initial, when placed separately, in compound structure with *fu*, changes its *s* into *r*, making *fu erim* instead of *fu esim*, which would be analagous to *fac sim* (*faxim*) used for the simple present *faciam*. In the imperfect conjunctive of attributive verbs, the *s* of the combined substantive verb is always changed into *r*, if we except the ancient forms *fac sem* (*faxem*) and *es sem* (for *ed sem*) which are used for *fac erem* and *ed erem*. But these two examples will be sufficient to prove that also *ama rem*, *mone rem*, &c. originate from *ama sem*, *mone sem*, if the reader will remember what has been several times observed respecting the tendency of *s* to be changed into *r*, in the Sanskrit and several

of its kindred languages, particularly in Latin; and if I have succeeded in shewing that every attributive verb should properly contain the verb substantive, to perform the function of a grammatical copula. If it cannot be denied that *facerem*, *ederem*, originate from *fac sem*, *es sem*, then it will naturally follow that also the infinitives *fac ere*, *ed ere*, &c. must be considered as compounds. Besides for *ed ere* (*ed ese*) we find *es se* instead of *ed se*, *d* before *s* being changed into *s* for sake of euphony, in the same manner as *pos se* is produced from *pot se* by a similar change. *E* is properly, in Latin, the termination of a simple infinitive, active; and the root *Es* produced anciently *ese*, by adding *e*; the *s* having afterwards been doubled, we have *esse*. This termination *e* answers to the Greek infinitive in *αι*, *εἶναι*, *ἔμμεναι*,* &c. If I have succeeded in my endeavours to shew that *ἐτυπσαι* is a compound, then it will naturally follow, that the infinitive *τύπσαι* offers the same compound structure. *Σαι* answers to *se* in *es se* (*ed se*), *pos se*; and, according to the theory of Mr. Matthiæ, *τύπσαι* would be an abbreviation of *τυπῖσαι*, where we have the Latin *ese* completely.

Hitherto we have only seen the root *Es* in conjunction with attributive verbs, but, as *Fu* is synonymous with it, expressing likewise the grammatical junction between subject and attribute, why should it not as well have its part in the conjugation of attributive verbs? I hesitate not to affirm that, whilst in *da rem*, *Es* is united with *Da*; in the indicative *da bam*, this attributive root is connected with *fu*, performing the function of a grammatical *copula*, ascribing the attribute *da* to the subject expressed by *m*. The corresponding indicative to *da rem* would be *da ram* (instead of *da eram*) and a conjunctive mood analogous to *da bam* would be *da bem*, because the change of *a* into *e* is characteristic of the conjunctive mood. As the usage of language chooses two different *copulas* for the indicative and conjunctive, a greater dissimilitude is thereby produced between the moods than mere modal difference would require.

* I consider the ancient infinitives in *μεναι* as derived from the participles in *μενός*, by substituting the termination *αι* for *ος*; the termination may also be rejected entirely, and *μεν* only remain. In Latin there is formed a kind of infinitive, called *gerund*, from the participle in *ndus*.

Fu, as it has been observed, answers to the Sanskrit *B'ù*, in form and signification. The Greek ΦΥ (φύω) has something altered the primeval sense. A Sanskrit aspirate *B* is changed in Latin either into *f*, which is properly an aspirate *p*, or into *b*, dropping the aspiration. The first change takes place, when *B'ù* becomes *Fu* in Latin, the second is perceived in *tibi*, which may be compared with the Sanskrit *tub'yam* (from *tub'iam*) signifying *to thee*. The Sanskrit termination *b'yas*, of the dative plural, becomes *bus* in Latin. But instead of *bubus*, we find in the Etruscan monuments, *buf* (Tab. IV.) and for *i-bunt* we find in Lucil. Afran. *i-font*. It naturally follows, that if *bam* in *da bam* is the substantive verb, *bo* in *da bo* must be the same, because *bam* and *bo* are distinguished just in the same manner as *eram* and *ero*. *Bo*, *bis*, *bit* has a striking similarity with the Anglo-Saxon *beo*, *bys*, *byth*, the future tense of the verb substantive, a similiarity not possible to be considered as merely accidental, because the Anglo-Saxon, belonging to the Teutonic stock, has a close affinity with the Sanskrit, and therefore also with the Latin. In the Latin tables of *Gubbio*,* we find instead of *erunt*, *eriront* and *erafont*. In the first case *Es* (changed into *Er*) is connected with itself, so far resembling the Provençal future *aur ai*, I have to have, and the Greek ἐσοῦμαι, I am to be, if the latter is really an abbreviation of ἐσέσσομαι; in the second case (*era font*) *Es* is connected with a word synonymous with itself. Those ancient forms make it probable that *da bam* and *da bo* might originally have been written *da fam*, *da fo*, in which state *fam* and *fo* are more nearly connected with *fu-i*, *fu-o*, or *fi-o*.

The Sanskrit root *B'ù*, as already has been observed, has two preterits formed by the augment; the first is *ab'avat*, *as*, *am*; the second *ab'ùt*, *ab'ùs*, *ab'ùvam*, the first person being not in complete analogy with the second and third. From *ab'avam*, I was, may be deduced *bam*, omitting the augment, by an abbreviation similar to that producing *malo*, *nolo*, from *ma-volo* and *ne-volo*. *Ab'ùvam* agrees more with the Latin *fui*, which is used separately, particularly if we pay regard to the ancient form *fuvi*.† It would be more difficult to prove

* See Lanzi, *Saggio di lingua Etrusca*.

† The *v* in *fuvi* ought not to be confounded with that in *laudavi*, but it was usual in ancient Latin to change *u* before a vowel into *uv*, thus is pro-

amavi to be a compound, than *amabam*; it is not, however, the habit of the Latin language to introduce *v* in the midst of a word without some reason,* and the change of *b* or *f* into *v* is not so great as to remain unattempted in languages; we recognize *amabam* in Italian under the form of *amava*; we see also, by the Provençal future tense *dir ai*, *dir em*, (*je dirai*, nous *dirons*), the latter for *dir avem*, that words entering into conjunction with others are liable to great alterations or contractions, in order that the compound might have more the appearance of a simple word; languages manifest a constant effort to connect heterogeneous materials in such a manner as to offer to the ear or eye one perfect whole, like a statue executed by a skilful artist, that wears the appearance of a figure hewn out of one piece of marble. What still more makes me consider *ama vi* as a compound, is, that it appears improbable that *possum* (*pot sum*) which contains the substantive verb in all other tenses, should be simple in the perfect *potui*, the same as *potvi*. My humble opinion, not indeed, produced that I may force it upon the reader, is, that where *Es* begins to be supplied by *Fu*, there *possum* begins to connect itself with *fu*, abandoning *sum*; but where *Fu* itself enters into conjunction with *Es*, as in *fueram*, there the root *Pot* contains two auxiliary verbs.

The Greek language has, in common with the Latin, the peculiarity of suffixing, in some tenses, the verb substantive in the third person plural, whilst all the other persons are void of it. For instance, ἐτίθεσσαν, ἔστασαν, ἐδίδοσαν, ἐζεύγνυσσαν; of which the middle form would be ἐτίθεσαντο, ἔστασαντο, &c. but after rejecting the verb substantive, we have ἐτίθεντο, ἔσταντο. The optative likewise enters into conjunction with the verb substantive, which, however, does not extend to the middle voice—τιθείησαν, τιθεῖντο, not τιθεῖσαντο. The verb substantive εἶην, a corrupt form, instead

duced *pecuva*, which is found for *pecua*, and *fuvi* for *fui*. In Sanskrit *ù* before a vowel is either changed into *v* alone, or into *ùv*, as in *ab ùvam*, I was.

* The Sanskrit words *navas*, new, *nava*, nine, &c. prove the antiquity of the *v* in the Latin words *novus*, *novem*, which I would not with the celebrated Vossius, derive from the Greek νέος and ἐννέα by the introduction of a *v*.

of *σεῖν* or *ἔσειν*, exhibits a combination with itself, producing *εἶν σαν*, but the simple form *εἶν* is more commonly used. In Sanskrit *dàya sus*, they may give, is the third person, plural, of the precativ mood, which has no other distinction from the potential than the rejection of the additional letters and syllables peculiar to the different conjugations. After this rejection the precativ mood enters, the second and third persons singular excepted, into combination with the verb substantive, which uses the terminations of the first preterit, all but the third person plural, it having the termination of the third preterit; and therefore we have *dàya sus* for *dàya san*, which would offer a more striking similarity to *διδόειν σαν*. *Sus*, however, is distinguished from the third preterit *àsus*, they were, in the same way as *σαν* from *ῆσαν*, that is by the rejection of the initial vowel. The following table offers the complete conjugation of the Sanskrit precativ mood, so that the reader will be able to compare the suffixed substantive verb with the first preterit of the root *As*.*

Sing.	Dual.	Plur.
1 <i>Dàya sam</i>	<i>Dàya sva</i>	<i>Dàya sma</i>
2 <i>Dàya s</i>	<i>Dàya stām</i>	<i>Dàya sta</i>
3 <i>Dàya t</i>	<i>Dàya stām</i>	<i>Dàya sus.</i>

It has been observed that in the conjugation of the Greek verb substantive, the radical Σ very often is rejected; this rejection might sometimes have taken place where $\text{'E}\Sigma$ entered into combination with attributive verbs. But in this case it remains impossible to ascertain the compound structure. It may be said that *ἔδόθην* contains the verb substantive in its whole conjugation *ην, ης, η, &c.* being joined to *δοθ*, the remainder of the participle *δοθείς* after the termination *εις* is rejected. But it may be answered, in opposition to this solution, that *η* in *ἔδόθην, ἔδόθης, &c.* is nothing more than the medium of connecting the pronominal characteristics with *δοθ*, such connexion being impossible without the intervention of a vowel. Therefore we dare only affirm, that the third person, plural *ἔδόθη σαν*, contains the verb substantive, because it is recognized in its radical consonant, Σ . The third person, plural, of the imperative mood, *τυπτεύω σαν*,

* See p. 32.

διδό-τωσαν—merits a particular notice, because the verb substantive is joined after the characteristic of the third person, *σαν* being joined to the singular *τυπτετω*, *διδότω*.

The Latin passive forms *amat ur*, *amant ur*, would, in some measure, agree with this mode of joining the verb substantive, if this *r* also result by a permutation of an original *s*; and this appears not quite incredible, if we compare the second person *ama ris* with the third *amat ur*. Either in one or the other there must be a transposition of letters, to which the Latin language is particularly addicted. If *ama ris*, which might have been produced from *ama sis*, has preserved the original order of letters, then *ama tur* must be the transposition of *ama rut* or *ama sut*, and *ama ntur* that of *ama runt* or *ama sunt*. If this be the case, the origin of the Latin passive can be accounted for, and although differing from that of the Sanskrit, Greek, and Gothic languages, it is not produced by the invention of a new grammatical form. It becomes clear also, why many verbs, with a passive form, have an active signification; because there is no reason why the addition of the verb substantive should necessarily produce a passive sense. There is another way of explaining *ama ris*, if it really stand for *ama sis*; the *s* may be the radical consonant of the reflex pronoun *se*. The introduction of this pronoun would be particularly adapted to form the middle voice, which expresses the reflection of the action upon the actor; but the Greek language exemplifies the facility with which the peculiar signification of the middle voice passes into that of the passive, for in most of the tenses the two voices are not at all distinguished from one another.

Before we draw to a conclusion our comparison of the verbs, I shall offer a few remarks upon the characteristics of the different conjugations in Sanskrit, and point out such Greek or Latin verbs as could be classed with one or other of them. The Sanskrit verbs are divided into ten conjugations; the characteristics of the three first we have already had occasion to mention, in which it has been observed that the first introduces a short *a* between the root and the personal terminations. For instance, the root *Srp** forms *sarp a ti*,

* *Sarp* might as well be taken for the root.

he creeps, *sarp a si*, thou creepest, *sarp a t'a*, you creep. With this may be compared all Greek verbs in ω that constantly interpose a vowel, generally a short one, between the root and the personal termination, and thus $\epsilon\rho\pi\epsilon\tau\epsilon$ agrees with *sarp a t'a*; in the first person the interposed vowel becomes long in Sanskrit; and thus, *sarp à mas* does not so completely agree with $\epsilon\rho\pi\omicron\mu\epsilon\nu$ (Doric $\epsilon\rho\pi\omicron\mu\epsilon\varsigma$), where a short vowel is interposed. In Latin it is particularly the first conjugation that adds an *a* to the root, which we shall compare with the first of the Sanskrit language. All Latin verbs, in fact, add some vowel or other to the root, unless it terminate with a vowel, like *Da*, *Sta*, &c. The second conjugation joins the personal terminations immediately to the root, like *Pà ti* from *Pà*, and thus in Greek the Doric $\phi\alpha\tau\acute{\iota}$ from $\Phi\Lambda$; the root *As* forms, after the same principle, *As ti*, he is, and *Vid* forms *Vid mas*, we know, which we have already compared with the Greek $\epsilon\sigma\tau\acute{\iota}$, and $\acute{\iota}\delta\mu\epsilon\nu$, or, with the digamma, $\acute{\epsilon}\acute{\iota}\delta\mu\epsilon\nu$. The third conjugation is distinguished by the repetition of the first radical letter, thus *Jan* forms *jajan-mi*, I produce, which agrees with the Greek $\gamma\acute{\iota}\gamma\nu\omicron\mu\alpha\iota$ and the Latin *gigno*, it having been observed that the Indian *j* always become γ in Greek and *g* in Latin. The Sanskrit root *Dà* forms *dadàmi*, I give, which is identified with the Greek $\delta\acute{\iota}\delta\omega\mu\iota$. The fifth conjugation interposes the syllable *nu* between the root and the personal terminations, thus *A'p* forms *àpnumas*, we obtain, *T'rp* produces *trpnumas*, we are pleased; in Greek the addition of the syllable $\nu\nu$ to a verbal root occurs very frequently, $\delta\acute{\epsilon}\iota\kappa\nu\mu\epsilon\varsigma$, (Doric form) $\zeta\acute{\epsilon}\upsilon\gamma\nu\mu\epsilon\varsigma$, $\rho\acute{\eta}\gamma\nu\mu\epsilon\varsigma$, &c. are formed after the principle of the above Sanskrit verbs, from the roots ΔEIK , $\text{ZEY}\Gamma$, $\text{'PH}\Gamma$. The roots *A'p* and *T'rp* may be recognized under $\acute{\alpha}\pi\tau\omega$, $\acute{\alpha}\pi\tau\omicron\mu\alpha\iota$, $\tau\acute{\epsilon}\rho\pi\omega$, which do not insert the syllable $\nu\nu$, and thus in Sanskrit the roots *Dis'*, to shew, forming the future *dak s'yàmi*, *Yug*, to join (*jungo*), *B'anj* or *B'aj*, to break (*frango*, *fregi*) which could be proved to be connected with the above Greek roots of similar signification, never use the syllable *nu*. The sixth conjugation is only a slight variation of the first, prefixing an *a* to the personal terminations. The seventh inserts a nasal in the midst of the root, thus *Rud'* forms *rund'mas*,*

* In the singular the inserted nasal receives an *a*, as *runad'mi*, I confine.

we confine, with which we may compare the Latin *tango*, *frango*, and the Greek *λανθάνω*, *λαμβάνω* from the roots *Tag*, *Frag*, *ΛΑΘ*, *ΛΑΒ*; the latter corresponds with the Sanskrit root *Lab*, to obtain. The eighth conjugation adds to the root the vowel *u*, thus *Tan* forms *tanòmi*,* I extend, *tanumas*, we extend, to which we may compare the Greek verbs *τανύω*, (*τανύμι*) *ὀλλυμι*. The ninth conjugation adds *nà* to the root, for instance, *strnàti*, he spreads, answering to the Latin *sternit*, where *n* does not belong to the root, forming the perfect *stravi*, and the supine *stratum*. Greek verbs likewise very frequently suffix a servile *ν* to the root, by which method are produced, *κλίνω*, *κρίνω*, *τέμνω*, from the roots *KAI*, *KPI*, *TEM*. The tenth conjugation, in Sanskrit, is distinguished by an *i* joined to the root, and the Latin fourth conjugation has the same characteristic. The fourth is the only conjugation of the Sanskrit grammar, wherein no analogy with the Greek or Latin is discoverable, it placing the syllable *ya* before the personal terminations as *nahyati*, he fastens, from the root *Nah*, shewing, however, by the future *nak s'yàmi*, that it is identical with the Latin root *Nec*, producing *nec to*, *nec sui* (*nexui*). For, it ought to be observed, that the characteristics of the different conjugations extend only to the first four tenses, disappearing in the future tense, in the second and third preterits, answering to the Greek perfect and aorists, &c.; conformably to the same principle the Greek verb *δείκνυμι* does not form in the future *δείκνυσω* but *δείξω*, in the perfect and aorist *δέδειχα*, *ἔδειξα*, not *δέδεικνυκα*, *ἔδεικνυσα*, &c.

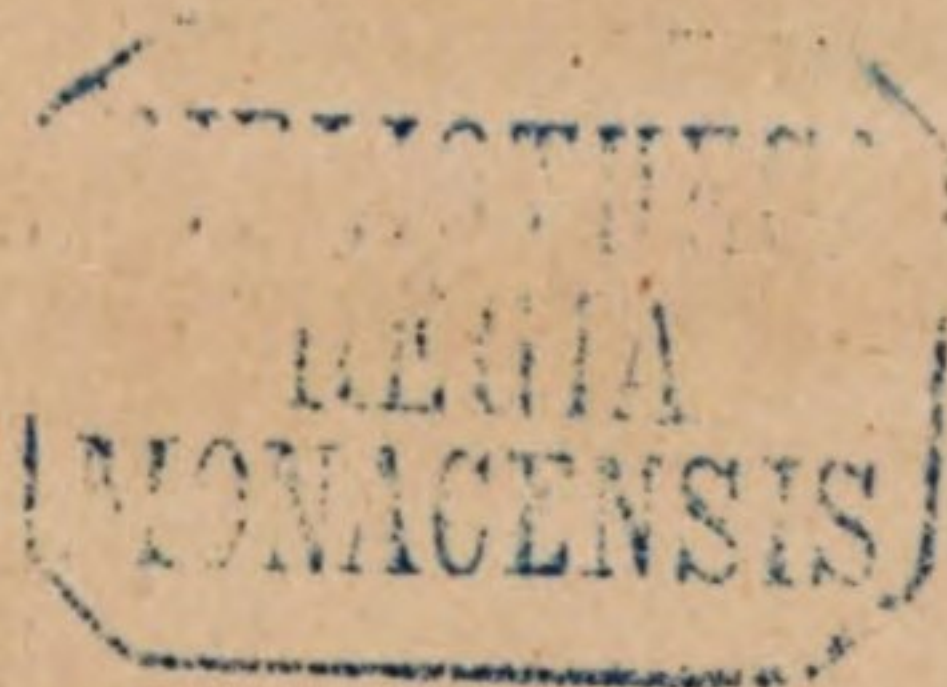
Of the Sanskrit derivative verbs I shall only mention the repetitives and desideratives. The former are very properly indicated by means of the reduplication, without joining any foreign particle to the root; the radical vowel is increased in the repeated syllable, and thus *Hu*, to sacrifice, produces *hóhu*, to sacrifice often, *D'u*, to shake, makes *dòd'u*. The desiderative verbs have likewise the reduplication, but, besides this, they suffix the syllable *sa* to the root, which becomes *s'a*, conformably to a rule of euphony, when the vowel *i* is introduced to form the connection between the root and the suffix. A radical *a* and *r*, short or long, are changed in the repeated syllable into *i*, thus *B'à* to shine, *Man* to think,

* *U* is changed into *ò* in the singular number.

Trp, to be pleased, *Dru*, to run, produce, *bib'asa*, *mimansa*, *ti tarp i sa* and *dudrùs'a*. *Bib'asa*, to wish to shine, may be compared with *πιφάυσκω*, I bring to light, which, although no desiderative, is formed after the same principle from *ΦΑ*. *Dudrùs'a*, to wish to run, answers not quite so perfectly to *διδράσκω*, formed from the root *ΔΠΑ*. It may be added, that, what has been observed in this essay with respect to the practice of joining the verb substantive to attributive verbs, in order to indicate the connexion between the subject and its attribute, which else would remain unexpressed, leads to the conjecture that the syllables *sa* and *σκω*, in the above derivatives, proceed from the roots *as* and *'ΕΣ*. We need not here repeat that *'ΕΣ* forms the imperfect *ἔσκειν*, I was, and that in ancient Latin we find *esco*, I shall be.

[To be Continued.]

Nicht vergessen!
Th





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